THIRTY FATHOMS DEEP

by Commander
— Edward Ellsberg —

George Krebs.

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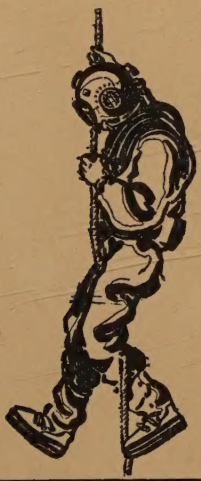

By Commander Edward Ellsberg

Author of *On the Bottom*

Illustrated by Leslie Crump

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To
my old shipmates
on the
"Falcon"

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CHAPTER I

THE SANTA CRUZ

"Y ENTONCES el capitán tiró una antorcha entra el polvorín."

Slowly Porter read the yellowed Spanish page translating as he went,—"And then the captain hurled a torch into the magazine."

Three hundred and fifty years had passed but still Bob's heart pounded as he visualized the scene,—the *Santa Cruz,* her masts carried away, rolling helplessly in the trough of the sea; the *Golden Hind* which had just raked the Spaniard with a broadside, coming up closehauled ready to lay alongside and board; the gallant captain of the treasure ship, all chance of resistance gone, determined to die rather than have his cargo fall into Drake's hands.

A volcano of flame rose amidships on the *Santa Cruz;* spars, casks, men, were hurled flaming into the sea; the hull buckled, the poop rose high above the water, then the ship vanished beneath the waves. A few bubbles, some wreckage, were all that marked the spot as the bow of the dreaded English corsair foamed up, her rail bristling with pikes and cutlasses in the hands of the thwarted boarding party. Drake had been cheated of his prey,—the wealth of Peru, the whole

year's hoard from the mines and temples of the Incas, lay at the bottom of the sea. A few Spaniards, terribly burned, were picked up, made prisoners. Drake continued northward towards Panama.

And so in the stately Castilian phrases of Don Jaime ran the tale of the fatal voyage which started at Callao and ended near El Morro Island, of his captivity, of his ransoming, of his return to Spain.

Carefully Bob Porter closed the warped parchment covers. Gradually his eyes came back from that far away episode, glanced round the dusty bookshop, gazed at the price tag on the table.

"Your Choice, Fifty Cents." Soiled biographies, worn text books, out of date fiction, lay in heaps on the table; nestling among them had lain the frayed book whose title had caught his eye,—"Un Caballero en Peru." Hastily he fished two quarters from his pocket; in a moment he was threading his way through the crowd on Beacon Hill. Still enthralled by Don Jaime's adventures, he turned mechanically down Park Street to the subway, started for home.

Thankful that his Spanish was good enough to understand it, he clutched his find firmly under his left arm as the milling crowd jostled him in the station. And as he clung tightly to a strap with his other arm while the swaying car jolted its way through the tunnel, a vague thought entered his mind, slowly took form. He was far away from Boston, thinking of the *Santa*

Cruz,—three hundred and fifty years ago, four thousand miles away, but vividly outlined before him as in that burst of flame she had vanished forever!

Forever? Bob wondered. Could he make Major Houghton see what he saw?

The car reached Brookline, Porter got out at Washington Square, almost ran till he reached Corey Road. In his room, with a Spanish dictionary to help him on some of the obsolete words, he went once more through the formal Spanish in which Don Jaime described his departure from Callao on the long journey to the northward; the strange sail which had attempted to overhaul them; their flight to the westward and the long chase which ended as they neared El Morro Island next day; the battle; the desperate attempt of their captain to run into shoal water to escape the *Golden Hind;* the loss of their masts as they approached the island; the destruction of the *Santa Cruz* to keep her fabulous treasure from falling into the hands of the hated Englishmen. Yes, there it was,—the leadsman's sounding just before they lost their masts,—thirty fathoms and shoaling slowly; El Morro Island still a league away with the sun just setting over the northern headland. Don Jaime had carefully noted it down,—it was the last thing he remembered till he came to next day, swathed in bandages, a prisoner on the *Golden Hind* waiting to be ransomed at Panama.

CHAPTER II

PERSUASION

Porter reflected. The idea which had flashed through his mind in the bookstore looked more and more feasible as he pondered it. Divers could get to that ship! He knew one at least who could surely do it.

The summer before he had spent his vacation in Casco Bay, on the water most of the time. And there Tom Williams, whose boat he had hired all season, had fascinated him with a never ending string of yarns of his strange adventures as a gunner's mate in the Navy. Williams was a quiet chap, but he had finally unbent under Bob's eager questioning and the thrilling stories of how he had helped raise two sunken submarines enthralled his listener.

Porter remembered every word of the stories. One boat, the *S-4,* had been in a hundred feet of water, the other, the *S-51,* in a hundred and thirty-five feet. The *Santa Cruz* was deeper,—thirty fathoms, a hundred and eighty feet down. Raising ships from such deep water was nearly impossible, Bob knew, but they wouldn't have to raise the *Santa Cruz.* If only divers could reach the treasure room, they could bring up the gold piecemeal.

A car drew up to the curb below his window, stopped.

Bob looked out eagerly. Yes, Major Houghton was stepping out of it. Porter carefully closed the aged book, ran down the stairs, and found the banker already settled in an armchair near the library table, unfolding the *Transcript*. He looked up at his nephew.

"Hello, Bob." He paused, noting the flushed face before him. "What's up? Any trouble in your department today?"

Bob shook his head vigorously, tried to speak calmly.

"Uncle, I've got a wonderful scheme for making nine million dollars on my vacation!"

The major examined his nephew a little anxiously, came to the conclusion that he was joking, then smiled indulgently:

"All right, young man, out with it."

Bob found his uncle strangely attentive as he poured out the story of the *Santa Cruz,* its cargo of gold and jewels, his ideas on how to recover the treasure, the marvelous exploits as a diver of his friend Tom Williams. He rushed upstairs for his book, watched while his uncle slowly turned the stiff pages, translating carefully as he read.

Major Houghton sank back in his armchair, closed his eyes, tried to visualize the story. The clock in the hall ticked steadily. Bob tried to keep his mind on his uncle, on the book lying open in his lap, but a tropical island, gleaming in the setting sun, seemed to blot out for him the room in which he stood.

The banker opened his eyes again, gazed curiously at his nephew.

"It's a wild gamble, Bob, but I'll back it! It'll cost—"

Impulsively Bob hugged his uncle, then suddenly remembering, carefully closed the book and placed it on the table.

The major smiled, then tried to calm his nephew with the practical details of an expedition.

"Let me see, Bob. It'll take a ship, a good captain, several divers, and lots of money, besides that book of yours. It'll cost at least a hundred thousand dollars to fit your expedition out. Sure it's worth it?"

But the far away look in his eager nephew's face was a sufficient answer.

CHAPTER III

FITTING OUT

THE *Lapwing* strained at her lines against an East Boston pier while the ebbing tide raced by. A mine sweeper once, built during the war to clear of German mines the path of the Grand Fleet cruising in the North Sea, she had lain idle at the Destroyer Base at Squantum since 1919. The Navy had gladly sold her at a slight fraction of her wartime cost. She was now nearly ready to sail.

A strenuous month had gone by. To Robert Porter, the intense interest which his uncle had shown in the adventure was almost as much a source of wonder as of joy. But it would have seemed quite natural if only it had occurred to Bob that back through the centuries almost to *Mayflower* days, the Houghtons had always pioneered in fitting out vessels for what had each time seemed to their staid Boston neighbors as crack-brained voyages, when they did not actually savor of piracy. Traders to the West Indies, when all such trade except with Spain was illegal, slavers to the Gold Coast, privateers in the War of 1812, tea clippers to China,—all had sailed from Boston to gratify the thirst for adventure of the Houghtons who had gone before.

And now Major Houghton, standing on the pier,

proudly surveyed the latest object of his family's urge to try its fortunes on the sea.

Leaning over the *Lapwing's* bridge was her new captain, Lieutenant Carroll, watching with Porter at his side, as an endless stream of stores went down the hold. On the dock near the headline, well clear of the stevedores working on the piles of cases and casks alongside, Major Houghton gazed up at the charthouse, unusually elated as he scrutinized his captain. Getting him had been a struggle. Lieutenant Carroll was captain of the Navy's salvage ship; it had been his skill and daring which finally had brought up from their ocean graves the two lost submarines on which Tom Williams had worked. To borrow him from the Service had proved a difficult task and it had taken all the prestige and influence of the major's bank, together with a personal visit to the Secretary of the Navy, to persuade the Department to grant Carroll a year's leave of absence. Carroll himself had been eager to go, but in Washington they were quite unwilling to release him; it was only the major's solemn assurance that if needed Carroll would be immediately sent back to the Navy with no expense spared to insure his hasty return, that finally secured a reluctant signature by the Secretary on Carroll's request for an extended leave of absence. Well, there he was; the major's breast swelled with pride at the thought that he had the best salvage skipper in the world to look after his nephew's search for the *Santa Cruz*.

Bob could hardly repress giving vent to the thrill he felt. He glanced at Carroll, admired the bronzed young sailor alongside him.

"Only twenty-eight years old," thought Bob, "and he's already got the Navy Cross and the Distinguished Service Medal!" He looked sidewise at the ribbons decorating Carroll's blouse. "That blue and white one's for the D.S.M. I'll bet there aren't many admirals have got that."

Carroll noticed his gaze, smiled a little.

"Well, Porter, we're nearly through. It may sound humdrum, but nine-tenths of success in any expedition consists in being properly fitted out before you start. Now's when we win or lose. It's more so when you go diving. It'll be worth a week's extra work here, if later that'll save one diver ten minutes' work on the bottom."

"You've certainly put in the work, lieutenant," said Bob. "Why, you've been at your desk nearly all night each day since you came making out specification lists and sketches for our supplies and machinery. I should think you'd go to sleep on your feet."

"Not as bad as that, Bob. Standing mid watches gets you out of the habit of sleeping all night. And I can't be too careful about checking our gear. There's hardly a single item that somebody's life is not going to depend on before long. You'll see."

A shrill pipe sounded. The main boom swung cutboard, dropped a cargo net on the dock. Two seamen

started to tumble cases onto the net. On deck the boatswain's mate roared out:

"Pedro! Carley! Belay that! There's submarine lights in them cases! Handle 'em like eggs!"

A swarthy sailor on the dock stopped in his tracks, clung tightly to the wooden case he was about to drop into the net, swore silently under his breath. Then, assisted by his mate, he placed the box gently down, and turned to seize the next one.

"Sangre de Cristo! I sign de article for enterpreter, not coolie! Tonight I jump de sheep!"

"Easy, matey, easy now!" breathed Carley. "Don't you go jumpin' no ships. Not after all the trouble I had gettin' you signed on. You stick by Tom Carley an' you'll come out top notch. This ain't no ordinary cruise. I lamped that when I seen all them stores. An' that lootenant, him there on the bridge, they don't ship skippers like him outa the Navy for no tradin' voyages. You just stow yer guff 'n lay low 'n listen to me!"

The conversation ceased. Both men loaded cases carefully till the netting was heaped up, then hooked the corners and leaped clear as the boatswain's pipe shrilled and the whip started up. Over the side swung the boom, the winchman lowered gently and dropped the cargo net into the after hold where three seamen cast it loose and stowed the boxes tightly against the forward bulkhead.

All day long to the rumble of the winch, the hoarse cries of the boatswain, and the creaking of the falls, the supplies came aboard, disappeared into the hold. Sacks of potatoes, cases of canned goods, crates of eggs, tons of assorted foodstuffs; bales of diving hoses, boxes of diving suits, bronze helmets, barrels of diving gear; steel bottles filled with compressed gases; cases of oil; rifles, machine guns, ammunition—in an endless stream they were discharged on the dock from heavy trucks, whipped over the *Lapwing's* side, stowed in the holds. Deeper and deeper the ship settled into the water as her cargo came aboard till the lower deck ports were nearly awash.

Four bells struck.

In the cabin, Lieutenant Carroll, Major Houghton, and Bob Porter seated themselves for dinner,—Carroll at the head of the table, the major at his right hand.

With a grand air, Fitz, Carroll's colored boy, resplendent in a white mess jacket, served in true Navy style. An elderly darky, grown gray on shipboard and retired for age, he had seized the opportunity to make another cruise with his former officer.

The major eyed him curiously.

"Fitz, you old rascal, do you realize your responsibilities?"

"Yes, suh, majuh, Ah does. I'se been shipmates with Mistah Carroll on two cruises, and Ah shuah knows how to boss 'im. Ah nevah lets 'im miss a meal,

'n when he's up late, ole Fitz's right on deck wid de coffee 'n toast. Yes, suh, Ah keeps 'im in shape. Dat's how come he gits all dem medals!"

Carroll laughed.

"Never fear, major, we're all right in Fitz's hands. Bob'll come back to you looking as if he'd been living at the Parker House!"

A broad grin suffused Fitz's black face, his teeth gleamed brilliantly. "You shuah am right, captain. I'se been cookin' faw dem naval officers ovah forty yeahs, an' when de wah come, dey jes go out an' lick de world!" Carefully he backed through the after door with the soup tureen.

"I certainly shan't worry on that score, at any rate," said the banker. "If your Navy divers are as well trained as your Navy cooks, it's all over except auditing the returns." He became serious. "Frankly, captain, I can hardly say I have much faith in a successful outcome. So far as money goes, I've tried to furnish everything you think you'll need, but I've read up on these salvage schemes since Bob pulled me into this one, and I find that practically all of them have been failures. Of course some were frauds, but many which had good seamen and good divers failed nevertheless. No reflection on you, captain," he added hastily, noting that Lieutenant Carroll seemed about to interrupt, "no reflection at all! I hardly need to say that it would be quite presumptuous on my part to attempt to instruct you on the difficulties of salvage. I merely

mean that you may never find the ship and even if you do, perhaps long ago she has fallen to pieces and her heavy treasure chests have scattered and sunk deep into the mud where you can never reach them. And finally, we have, after all, only an old Spanish tale to guide you,—perhaps it's false. I hope not. Bob, you remember the night you first showed me that book?"

"Yes, uncle, I'll never forget it."

"Well, Bob, I told you then what this expedition might cost. It has cost that, and more,—$150,000. I'm willing to gamble it though. Understand now, captain, why I'm not very hopeful of success. I know how these things go. You and your men are sailing into danger. If it were just for money, I'd not finance it or let Bob go. But there's adventure in it that's worth more than the gold. Be careful. Don't lose anybody. And if you come back without a single doubloon, it'll still be worth it to me."

"Why, uncle, of course we'll succeed!" broke in Bob enthusiastically.

Lieutenant Carroll smiled indulgently at the outburst.

"I think I understand your attitude perfectly, major. Before I tackled my first submarine, I would have said exactly what Bob here did. Now I think I know better. There isn't another thing on this earth as heart-breaking and as full of disappointments as fighting the sea for something it has once swallowed up."

Major Houghton nodded, Bob listened attentively.

"The one thing we can be sure of," continued Carroll, "is that disasters we can't even dream of now, are going to occur. I've struggled through two campaigns at the bottom of the sea and nearly everything's happened to me or my crews, but you can just bet that old man Neptune's still got a few tricks he hasn't tried out yet." He paused, while Fitz served the main course.

"But, major, while I can't guarantee success, mostly for the reasons you gave, I can say that if that ship's there, we'll find her, and if the gold is in her hull, we'll get it before we're done with her!"

"There you are, uncle," exclaimed Bob triumphantly. "If Don Jaime was right, we can't fail!"

"Let's hope he was," replied the major. "His account sounds real to me. Odd though, while I've had several bibliographers tracing that book, and they assure me that it's genuine, they say the only other copy they can discover in existence is in the Escorial library in Spain. I've had that copy checked and it agrees with ours. For the life of me, though, I can't imagine how it ever got on that bargain bookshop table. Did you ever go back, Bob, to find out where it came from?"

"Not on your life!" laughed Bob. "I didn't want any former owners coming in and claiming it. The book's mine. I paid for it and I don't care much how it got in that bookstall on Beacon Hill. It's safely in my cabin now."

The meal proceeded in silence, each man absorbed in

his own thoughts of what lay in store for the *Lapwing*. Through the ports came again the rumbling of the winches and the sound of the boatswain's pipe as the loading of stores was resumed by the crew.

"This is your last night in Boston, my boy. Coming ashore with me to say good-by at home?"

"No, thanks a lot, uncle, I'd rather stay aboard. My outfit's here now, and I guess Fitz has got it stowed already. Besides, except for Tom Williams, I hardly know anybody in the crew and I'd like to get acquainted a bit before we shove off. I've said good-by to everyone in Brookline anyway."

"As you please," answered the older man. "Perhaps that's best anyway. There'll be fewer questions. By the way, lieutenant, I've been pestered to death on State Street by my friends asking what the *Lapwing's* cruise is all about. Of course, I've kept it a secret, except to let them infer that it's a sort of tropical expedition to explore the flora and fauna of the Caribbean to gather specimens for the museum. That sort of thing has been quite fashionable of late, and somebody from a museum lectured last winter on what he saw down there among the corals. I think they rather believe that's what the trip is for, especially as my nephew is going along. Has anyone bothered you that way, captain?"

"A little, major. A few reporters were curious about our cargo; some of 'em think we're outfitting a Central American revolution, but I've told 'em it's just a com-

bination of a scientific and pleasure voyage to the tropics. Except us three nobody really knows what we're going out for; of course our four divers know we're going after sunken treasure, but even they don't know what ship or where she lies. A venture like this has to be a secret; we're bound to have trouble enough without having to bother with the army of cranks that would be swarming over our rail if our real purpose got out."

"We're not asking anybody's help. Why should they take the trouble?" asked Bob.

"I'm afraid I can't tell you why, Bob, but they will. We'd be swamped in a sea of advice. On my last salvage job, I received thousands of letters telling me how to do the job, and the funny thing about it was that most of them were from people who had never seen the ocean, let alone a sub or even a diver. And they were the wildest suggestions. The less the writers knew about mechanics or the sea, the more certain they were about the absolute success of their pet schemes. And that's what would happen here if this got out, except that on top of all the cranks who would be camping on our quarterdeck trying to force us to adopt their inventions, there'd be a couple of regiments of swindlers banked against the rail to get us to invest the treasure in the most fantastic financial dreams. No, I like secrecy and seclusion when I go diving!"

"I see you have a very level head, lieutenant," said

the banker quietly. "That part about the inventors never occurred to me, but I know very well about the get-rich-quick schemers we'd have to contend with. Not to mention more dangerous scoundrels. You were very careful about your divers of course. I haven't met them. Whom did you get?"

"There's Tom Williams you've heard about. He used to be a gunner's mate. Then I got Bill Clark, Joe Hawkins, and Frank Martin. They're all divers that worked with me before; every one of 'em's been retired into the Naval Reserve after sixteen years' service in the fleet. Clark's a boatswain's mate. He's out on deck now, manning that pipe you're listening to and getting the cargo aboard. Hawkins and Martin were Chief Torpedomen. I was lucky to get that crowd; they're the four best out of over twenty-five divers that went through those two deep sea operations with me."

"And how do you rate them, captain?"

"Well, major, without doubt I think Tom Williams is the best diver in the world. He's as much at home in a rig under water as we are in our street clothes up here. The other three aren't much behind him; I don't know as there's any choice between 'em except that Martin's a wonder with the torch and Joe Hawkins is mighty fine with a washing hose. But they're all men I can rely on; when they look at a wreck and report how she lies, I know I can believe 'em. And that

means a lot, major. You'd be surprised at all the weird things an ordinary diver sees under water that just aren't so."

The major pushed his chair back and drew out a cigar case. He offered one to Lieutenant Carroll, who refused with thanks.

"I know you don't smoke, Bob, since you're still keen on athletics, but I supposed everyone in the Navy did," he explained with some surprise, as Fitz held a lighted match for him.

"Perhaps you're right," laughed Carroll, "but I'm the exception then. I didn't smoke before I went to the Naval Academy, and as we weren't allowed to smoke our first three years there, I just never picked up the habit."

The banker regarded him curiously. An odd person indeed. "Everything about the man's unusual," he thought to himself, puffing on his cigar. "Famous at twenty-eight, with a world-wide reputation for daring, and yet he's quite unspoiled. Bob will have a marvelous companion." Aloud he asked:

"How about the rest of your crew? You have thirty men, I think?"

"They look all right. I was very careful in shipping the men to take only those who seemed to be steady-going seamen. I don't think we have any tough cases, and I took special pains to see that all of 'em were Americans. You know that isn't so easy. Over half the sailors floating around this port are foreigners who

have deserted their ships here for a chance to sign on for higher wages on our vessels. But I stuck to that rule. All of 'em, seamen, firemen, engineers, are Americans and their discharge papers from their former ships all show good conduct. I had to make one exception, however. We're going to South America and we'll need somebody who can interpret, so I signed on one Spaniard. I couldn't find out much about him, except that one of the other sailors, a pretty capable seaman, says he's been shipmates with him on a Munson liner and that he's a good sailor."

"This isn't like the Service, captain, where a man enlists for four years and you can pick the best. Here you have to trust your judgment and take the men as you find them. But you're getting away without any trouble, and I don't believe there will be any once you're out." The major rose, Fitz brought his hat. Accompanied by the others, he went down the starboard passage to the gangplank, shook hands heartily with Lieutenant Carroll and with Bob.

"Good-by and good luck!" He walked ashore, hurried to his car waiting at the head of the pier, disappeared without looking back.

CHAPTER IV

UNDERWAY

Six bells in the mid watch struck. It was high water slack, and the gray sides of the *Lapwing* shone ghost-like above the dock in the gleam of her forward search-light. The last of the heap of cases had just disappeared from the dock into the *Lapwing's* hull. The gangplank was pushed ashore.

Three hoarse blasts rang from a deep-toned whistle abaft the stack; the seamen on watch manned the hawsers.

Lieutenant Carroll, dimly visible, leaned over the bridge rail armed with a megaphone.

"Let go aft!"

The stern line was lifted off the bollard on the dock, splashed into the water, was quickly hauled in over the quarterdeck bulwarks. The captain looked up at the little platform on the foremast over the bridge.

"Train forward!"

The searchlight beam cut through the darkness in a sweep towards the bow, brilliantly outlining the piles under the dock against the black water below.

"One third astern!" The quartermaster stepped to the engine telegraph, swung the lever over. In a moment, a brass indicator, moved from the engine

room below, followed the lever to its new position, stopped.

A mass of white bubbles foamed up under the *Lapwing's* stern, the ship trembled, the headline tautened under the strain.

"Let go forward!" shouted Carroll.

On deck the bow hawser was slacked out; on the dock, a stevedore cast the eye of the hawser off the bollard. It came in dripping over the bow, as the *Lapwing,* underway at last, slipped smoothly astern, cleared the dock and backed out through the night into the channel.

A moment later the ship, shrouded in darkness except for the hooded light over the compass and her running lights, was steaming out of Boston harbor.

Bob in the starboard wing of the bridge, felt a warm glow coursing through his veins as he listened to the crisp orders of the captain, heard in the darkness the running seamen casting loose, watched the wheel spinning right and left as the quartermaster maneuvered the ship out, finally felt the steady throb of the propeller as they steamed away through the night. Astern there gleamed the lights of Boston, the Custom House Tower a black finger towards the sky; ahead only the dark ocean and the *Santa Cruz!*

The tide had turned and was running a strong ebb, assisting them. Shortly they cleared Boston Lightship, steered across Massachusetts Bay, and as daylight broke, passed outside Cape Cod and headed southward.

Much excited over his first voyage, and determined to miss nothing, Bob had remained on the bridge even after the morning watch came on. As they made their landfall at the Cape, thoroughly satisfied and very tired, he turned to descend the steep ladder from the bridge. A little knot of men gathered on the starboard beam caught his eye. They were standing rigidly at attention, hats off, gazing to the southward. He looked more closely. The divers. He called to the skipper, "Look!"

Lieutenant Carroll came over from the wheel, glanced down, then looked off in the same direction, bringing his arm slowly to "Salute." He held it a moment, then dropped his hand.

"For the *S-4*, Bob," he explained gravely. "We're passing over the spot off Provincetown, where forty brave men died. And here, we on the *Falcon* clung in a howling December gale, unable to dive, while the last six of them, rapping feebly for air, finally passed out. Those divers had to live through it, listen to their shipmates perish, later bring up their bodies. They'll never forget. Joe Hawkins was nearly killed trying to take an air line down to the *S-4* in that storm. Tom Williams went down and saved him. Tom's got a Medal of Honor he won that night. Maybe he'll tell you about it some day."

Porter's eyes dimmed a little as he watched the group beneath in their silent salute to their lost shipmates. A moment longer they stood, then without a

word the knot broke up, the men disappeared below.

Soberly Bob descended the ladder to the cabin, entered his own stateroom just under the bridge, quietly undressed, and slipped into his bunk.

CHAPTER V

AT SEA

WHEN Bob awoke, the *Lapwing* was gently rising and falling as she pitched to the long swells of the Atlantic. Looking out the forward port, the far horizon moved up and down, one moment being at the ceiling of his room, the next vanishing beneath the deck. Bob slipped from his bunk, for the first time pulled his seagoing clothes from the closet, put them on. A blue flannel jumper, sailor's blue trousers, an officer's cap without the insignia, a serge jacket with brass buttons, —in a moment he was dressed and out into the cabin.

The captain was there before him.

"Fine morning, Porter. Get enough sleep?"

"Plenty, thanks."

Fitz brought in breakfast; Bob made short work of it, excused himself and went out on deck. A fresh breeze from the southeast was sweeping over the port bow, carrying with it a fine spray as the waves broke against their low side. Bob took a deep breath of the salty air, crawled forward over the anchor engine and the chains, ensconced himself in the eyes of the ship. Here the pitching was more pronounced, and as Bob rose and fell some fifteen feet with the motion of the ship, he felt himself really at sea. Below him was the

blue ocean; the *Lapwing* with a bone in her teeth cut through the waves, her sharp bow wreathed in a curling mass of white foam as she plunged through each crest. A thin wisp of smoke, sharply cut off the top of the stack by the wind, streamed off to leeward on the starboard quarter; astern a wide wake of foaming water boiled up to mark their passage.

The decks were clear; evidently the crew, after their arduous labor of fitting out, had been allowed to sleep in. Only the helmsman and the mate were visible inside the pilot house.

Looking around, Bob saw only water in all directions,—the *Lapwing* seemed a small speck in the wide expanse of sea. He abandoned himself to the spell of the ocean and for over an hour never stirred from his post in the bow, watching the ceaseless assault of the never-ending lines of billows against the stem of the ship.

As the sun rose higher, he began to feel a little queer, decided to seek a quieter spot. He went aft to his stateroom, crawled into his bunk, clothes and all. That was nearer amidships, where the pitching was less. Lying down made him feel better momentarily, but soon again his mouth began to water, he felt a strange illness in his stomach, and a rising feeling in his throat. He fought it down. Grimly he clenched his teeth, tried not to swallow, stretched himself crosswise in his berth to minimize the motion. He caught his reflection in the mirror; his face was pallid, a sickly

color akin to green. He closed his eyes, the sight of himself made him feel worse.

The bunk rose and fell under him; each time it dropped away, it seemed as if his stomach were seeking escape from his body. Desperately he strove to tell himself it was nothing, but his mouth watered more and more, the rising feeling inside made him sicker. A heavier roll than usual; Bob felt he was lost. Hastily he clapped one hand over his mouth, leaped from his bunk through the door and out to the lee rail. He was barely in time. A pathetic figure, he hung over the bulwark; it seemed to him that everything he had eaten in weeks went overboard.

At last, slightly relieved, he crawled miserably back into his bunk. As the ship continually heaved under him, he grew sicker and sicker, and made several more trips to the rail, but with nothing left to disgorge, he felt as if his very insides were struggling to come up. Utterly wretched, he lay feebly in his tossing bunk, closing his eyes to shut out that vision through the porthole of the horizon dancing wildly up and down. When he could think at all, he wished dolefully that he had never learned to read Spanish.

The hours went slowly by. Eight bells struck, Fitz tried to tempt him with some broth. The odor nauseated him. He told Fitz to get out; he never wanted to see food again.

Slowly the afternoon wore on, the breeze died down,

the sea calmed somewhat and the motion of the ship became easier. The feeling of utter sickness all over his body passed somewhat; he had no desire at all for supper, but he was able to smile wanly when Lieutenant Carroll came in to see him.

Carroll laughed at his woe-begone expression.

"Cheer up, old man, we've all been there. You'll be all right tomorrow probably. The sea's not bad at all. I can understand how you feel though. Don't look so 'shamed of yourself. It's happened to the rest of us too. When I made my first trip as a midshipman, we went out of Chesapeake Bay headed for Europe on the old battleship *Indiana*. She was a top-heavy tub and a bad roller. I was a plebe then. The upper classmen had been kidding us about being seasick when we cleared the Capes, but I just knew I wouldn't be.

"However, when we started to heave to the Atlantic swells next morning, the only thing I wanted to do was to lie down in a quiet spot. But we midshipmen didn't have bunks, we swung in hammocks, and in the daytime they were all lashed up and stowed in the nettings. So I picked out a spot on the berth deck, as nearly as I could figure it, midway between bow to stern, and halfway from keel to superstructure. I estimated that the ship must be moving around that spot as a pivot and that consequently right there the motion was least. I stretched out on the deck athwartship and lay like

a log all day. When they sounded hammock call at night, I didn't stir, just lay there all night long. Next morning a sailor booted me in the stern sheets, told me to get out, he had to wash down the deck. I wasn't interested. I was going to stay just where I was and I told him not to stop for me. He didn't. The old salt water hose was turned right on deck, but there I stayed, and pretty soon they came along with the squilgees and dried down all around me.

"I don't think I stirred from that spot for two whole days, and I certainly wished I had stayed back in the mountains where the worst that can happen to you is a landslide, but I got over it at last, and long before we reached Europe I was a good sailor."

A feeble grin relieved Bob's worn face as he imagined the wash deck hoses playing round his seasick friend. He rolled over slowly, smiled weakly at Carroll.

"I suppose I am lucky to have a bunk to be sick in, but I never dreamed that anything'd make me feel so hopelessly gone. An hour ago, if the whole *Santa Cruz* had drifted by and all I had to do was to stretch out my hand to win her, I wouldn't have cared enough about it to lift a finger. I just wanted to die and be done with it!"

The captain nodded sympathetically.

"I know exactly, Bob. And it's just as bad as that too. But the fact that you can even talk about it now shows you're getting over it." He unlaced Bob's shoes,

tossed them into the closet, pulled a blanket up over him.

"Try to sleep. Tomorrow you'll be surprised!" He went out, closed the door.

CHAPTER VI

ABOUT DIVING

"DERE, Mistuh Porter, Ah jes knowed you'd be eatin' agin some day!"

"Don't you kid me, Fitz," said Bob, smiling a little sheepishly after his second cup of coffee.

"Don' worry, dey ain't nobody knows it 'cept de skipper an' me. You dun got ovah it quick. But Ah reckon you'll want me to press dem clothes. Dey shuah look as if somebody'd slep' in 'em!"

Bob looked at his badly wrinkled jacket and nodded.

"You can have 'em right after breakfast, Fitz. And remember you've got to forget this when we get back!"

A broad grin from Fitz assured him that it was already forgotten.

Still a little pale and weak, Bob after changing his clothes went out on deck. It was a glorious June day, a mild breeze fanned the ship, sailors lounged against the deck house, or worked in little groups on the fantail. Abreast the door to the galley, leaning against the starboard rail, were the divers. Bob sauntered down the passage to them.

Tom Williams, a broad-shouldered six footer, towered over the group. Bill Clark, heavy set but shorter, puffed away on a short pipe. Joe Hawkins and Frank

Martin, both rather slight figures compared to their brawny shipmates, seemed to be engaged in making fun of Clark who very seriously was arguing with them. Williams, Hawkins, and Martin, all of whom had been chief petty officers, still wore their old uniforms including their visored caps with the Navy fouled anchor, but Clark, who had gone into the Reserve as a boatswain's mate first class, had on only a sailor's white hat, and it was over this that the discussion seemed to center.

It stopped, however, as Bob came up.

"Hullo, Bob," said Williams, greeting him with the cordiality born of their previous summer together. "We been tryin' to convince Bill here that the reason he never made chief in the old outfit while we all did, was because we were better sailors 'n him."

"Belay that, Tom. It was just coz I was a better man, Mr. Porter, than any of 'em!" said Clark emphatically. "Here these lubbers'd go down on a diving job 'n get in trouble 'n have to rescue each other. Then when they come up, they're all heroes 'n get promoted. Here I am, the best diver in the lot, made more dives 'n any of 'em. When I get in trouble, I get myself out 'n never say nuthin' about it on the top side. Why, if I got a promotion each time I rescued myself from a tight hole, the way these gobs do for each other, I'd be an admiral by now instead of a boatswain's mate!"

"You'd make a sea-goin' admiral all right, Bill, 'specially with that pipe of yours," said Martin un-

abashed. "Too bad you were so modest about tellin' Lieutenant Carroll about all those rescues. Still I s'pose it was safest. If he'd learned what a dub you were on the bottom, always havin' to be rescuin' yourself, he'd a kept you on deck where a boatswain's mate really belongs."

They all laughed.

"C'mon into the tank. We'll be more comfortable there. I'm tired of standing," said Martin.

They went through a door in the starboard bulkhead, ducked one by one, and slipped through a small round door into a cylindrical steel chamber about six feet in diameter, then through another similar door into the inner compartment. Bob looked around wonderingly. Several valves lined the outboard side, while a gauge hung overhead.

They sat down on some blankets covering the wood deck inside; Bob however had a bench.

Joe Hawkins noted the young man's curiosity at the strange shape of the room.

"I guess you don't know much about diving, do you, Mr. Porter?"

Bob nodded.

"Well, this is 'the iron doctor,' so far as us divers is concerned. The technical sharks call it a recompression tank. It's built to stand high pressure just like a boiler. That's why it's cylindrical and has got dished heads. And those round doors we came

through, they've got to be small so as not to weaken the end bulkheads too much."

"D'ye know what the pressure's for?" asked Martin.

"I'm sorry, but I don't," replied Bob.

"Well, I guess I'd better start at the beginning then," said Hawkins. "It's a long story. You lads can interrupt me if I get it wrong anywhere."

They settled themselves comfortably, Bob on the stool facing the sailors who sprawled out on the deck, their backs against the steel cylinder.

"Well, you see, Bob," started Joe, "diving isn't what most people think it is. They think we wear a diving suit to keep from getting wet and getting drowned but that isn't what really bothers us under water. That is, not much anyway. It's the pressure that causes the trouble in diving. Now y' know water's heavy. That's simple; it's the weight of the water the *Lapwing* displaces that's keeping her afloat, and the *Lapwing* is no feather. Well, anyway the water's got plenty of weight and when you go down in it, it presses against you with a force equal to nearly one hundred and thirty pounds per square foot for every two feet you go below the surface. Let's see, how deep's that ship we're going after?"

"A hundred and eighty feet," responded his much-interested auditor.

"A hundred and eighty feet," repeated Hawkins slowly. "Let's see what that makes." He figured a moment with a pencil on the side of the tank. "To be

exact, it's about six tons to the square foot. All right. That means that down where that ship lies, the sea is pressing over each square foot of her with a weight of six tons. Now let's say a diver gets down there. There's the same pressure from the sea all over him. Hey, Tom, what'd Lieutenant Carroll say the average area of a man's body is?"

"Well, it's worse for me 'n it is for you, I'm bigger, but it runs about fourteen square feet on the average."

"Good enough. Take fourteen square feet," continued Hawkins. "That's six tons on each square foot times fourteen," he thought a moment, "eighty-four tons. That means the sea is pressing down on the diver's body with a weight of eighty-four tons. I guess that's as much as a sixteen inch gun weighs. Just imagine trying to support the breech end of a sixteen inch gun resting on your chest."

Bob tried to imagine it. It did not seem possible.

"It'd mash you flatter'n a pancake all right, but that's just what the diver's got to support down there, and here's how he does it. As he goes deeper and deeper, you force air down to him through his airhose at a pressure that has to be a little greater than the pressure of the water where he is. The air comes into his helmet and he breathes it in under the same pressure. It goes to his lungs, puts them under pressure, and his blood carries the pressure all through his body to every part of it. Let's see, what can I compare him to?"

"An automobile tire," suggested the boatswain's mate.

"Yes, I guess that just fits. Take one of these automobile buses, for instance; they're big and heavy but the weight is held off the road by the air inside the inner tube. As long as that's blown up with enough pressure, the tire's rounded out and carries the load. But if the tire springs a leak and loses its air, then down comes the weight of the car and flattens out the tire.

"Well, a diver's the same way. As long as he's blown up with a pressure equal to the water pressure, he's all right, but if his helmet loses the air pressure inside it, down comes that eighty-four ton weight like a trip hammer and mashes him as flat as any blown out tire!"

Bob whistled.

"That's happened plenty of times," added Williams, "and the water don't have to be so deep either. While we're workin' on the *S-51*, a diver workin' in only thirty feet of water in the East River was 'squeezed' to death when his tender up on deck carelessly uncoupled his airhose an' let all the air blow out of his helmet. That diver was jelly when they hauled 'im up. Most of his body was squeezed right up into his helmet."

"You see how it is, Bob. If you want to work in deep water, you've got to work under high pressure. And that's the real danger in deep sea diving. Diving isn't anything new, you know. There's been plenty

of treasure ships sunk before, some of 'em in water that wasn't so deep and divers have been working on 'em for a couple of centuries back. But the strange thing about it was that if they stayed down long enough to do anything, when they came up, they got terrible convulsions and those of 'em that didn't die, usually got paralyzed for life. Of course, that didn't make diving exactly popular, but people'll try lots of things if there's enough in it and they kept on struggling after these sunken wrecks. None of 'em ever lived very long to enjoy the gold when they got it though, and they laid the trouble to all sorts of superstitions. The disease got the name of 'the bends' from the way it caused the victims to double up in pain.

"And that's the way the thing stood until all sorts of engineering jobs and bridge foundations turned up that required men to work under air pressure. Then the doctors turned to and started to find out what caused 'the bends' and how to avoid 'em. And they discovered a curious thing."

Bob listened eagerly, but he was interested to note that the other divers were just as much absorbed in Joe's recital as he was. Evidently Hawkins had studied the theoretical side of diving as well as practising it; his shipmates were listening as if most of it was new to them.

"Well, the surgeons found out there was a difference between breathing air the way we do, and having to breathe it under pressure the way a diver does. I

s'pose you learned in school what air's made of?"

Bob nodded. "Oh, yes, we had it in our physics course. Air's about one-fifth oxygen and four-fifths nitrogen."

"Yes, that's it," agreed Joe. "Now look what happens. When we breathe here, the oxygen we get in each whiff is taken up through the lungs by the blood and acts chemically on it for all sorts of purposes that our bodies need. But the nitrogen is just inert, it doesn't do anything except dilute the oxygen and gets breathed out again when we exhale. That's what our bodies are accustomed to.

"But that ain't what happens to a diver. Instead of breathing just ordinary like we're doing here, he's breathing air that's under high pressure. And under that pressure, the nitrogen entering his lungs, instead of being all exhaled, is forced by the pressure to dissolve in his blood. Now the deeper a diver goes the greater the pressure gets, and he consequently soaks up the nitrogen faster; the longer he stays there, the more he gets. The nitrogen doesn't do anything but just dissolve in him. Of course, he doesn't feel it; the oldtime divers didn't even know it was happening.

"So there he is, feeling more or less all right till it's time to come up, and then the trouble starts. What's the best illustration of what happens? I got it! He's like a ginger ale bottle.

"Supposing we had a bottle of ginger ale here, and I'd hold it up to the light. It'd be a nice clear liquid.

There's a gas, carbon dioxide, dissolved under pressure in the ginger ale, only we don't see it. Why? Because the pressure keeps it dissolved. Now supposing Tom here rips the cap off the bottle. What happens? The pressure is released as soon as the bottle's opened and the gas starts to come out of solution. Result? The ginger ale gets full of bubbles and froths out of the bottle!

"Well, Bob, that's just what used to happen to the divers. When they came up, the pressure they were under disappeared and the nitrogen dissolved in their blood, without any pressure to keep it dissolved any longer, came out and formed bubbles. And the more gas they had in 'em, the bigger the bubbles were. The bubbles would clog their arteries and veins, stop the circulation and give 'em 'the bends.' If they hadn't been down over long, the bubbles'd gradually work out and they'd recover, but if there were very many, they'd die. Some of the bubbles'd lodge in their spinal columns and that's what gave 'em paralysis even if they managed to live."

"So that's why deep diving's so risky!" exclaimed Bob. "I'd always thought it was because of devil fish and sharks that diving was dangerous!"

"Yeh, them's the fairy tales they feed the kids," said Martin. "That's a hot one! Any of you lads ever bothered by sharks?"

"I saw one once," answered Tom, "when I was

workin' off the Delaware Capes. He just swam round but didn't bother me none."

"I suppose that's the way she goes," continued Joe. "What a diver's actually up against ain't bad enough for these wild tales by people who ain't never seen a diver. Well, anyway, it's bad enough for the divers. But getting back to my story, when the doctors found out that bubbles was what was causing 'the bends' they just about had the answer.

"Instead of letting the diver come right up when he was done, the thing to do was to bring him up only a short way so as some of the nitrogen would come out of solution, but still there'd be pressure enough left to keep any bubbles from forming. Then after a little while there, haul him up a few feet more to let some more gas work out, and so on all the way up,—taking him up by stages with a stop at each stage to let him 'decompress' as they called it. And that was the cure. They worked out the decompression tables and if you don't stay down too long and come up according to the tables, you won't get 'the bends,'—not bad, anyway."

"That's right, mates," added Bill Clark, "but the distressin' thing about it is that you have to put in about twice as long comin' up as you spend on the bottom, and if the water's cold, the way it was on them subs, you sometimes wonder if you wouldn't sooner have 'the bends' than freeze to death on the way up!"

"It's a tough life, any way you take it," Martin ad-

mitted. "I'm glad this boat's gonna be in a warm climate. I've had enough of divin' in ice water."

"That's some relief anyway. I'm looking forward to it as a change myself," agreed Hawkins. "It'll be a pleasure not to have to put on three suits of woolen underwear and dress up like a polar bear before taking a dip."

"And doesn't anyone get 'the bends' any more?" asked Bob.

"They sure do," replied Bill. "That's what this tank's for and that's why we call it 'the iron doctor.' If the boys get 'the bends' now, we clap 'em into the tank and put 'em under pressure again as fast as possible. That recompresses the bubbles an' relieves 'em. Then we lower the pressure by steps an' 'decompress' 'em again. It's a great thing."

"You'll notice this is a two compartment tank," explained Tom. "That outer chamber with the double doors is so anybody can pass in or out to help the man under pressure in here. That's an airlock. You can get into it from the outside, close the outer door, run the pressure up till it balances whatever pressure's in here, then open the inner door and crawl into this chamber."

Hawkins stretched himself.

"I think I heard eight bells. Feels like chow time to me." He got up, crawled out, followed by the others. Bob, his head somewhat in a whirl at what divers

really had to combat, squeezed through the airlock doors out to the deck. He took a deep breath, the air in "the iron doctor" had been getting stuffy. Slowly Bob walked forward, entered the cabin.

CHAPTER VII

DON JAIME'S BOOK

Day after day under a sky growing bluer and bluer, the *Lapwing* stood on to the southward. The weather grew warmer; they entered the Gulf Stream, and it became uncomfortably hot and humid as the sea temperature took a sudden jump. Blue clothes were discarded; all hands came out in whites and the scuttle butt just outside the galley, with its ice cold water, became the popular gathering place for the crew.

Bob wandered through the ship, exploring every hold, getting acquainted with every compartment. On deck he found it hot enough but in the boiler rooms he marvelled at how the firemen stood it, with the temperature at 120°, flames roaring through the furnaces and radiating heat out onto the floorplates; the sweating firemen tended their burners, regulated the feed pumps, watched the water levels in the gauges while Bob, wilting under the fierce heat, sought refuge by standing directly beneath the ventilator down which a stream of air rushed into the fireroom,—hot air from the top side but cool nevertheless by contrast with the rest of the room.

Soaked in perspiration, his undershirt clinging tightly to his back, Bob looked around. On the port

side, outboard of the boiler, was a large horizontal air compressor, newly installed to supply air to the diving lines. Over it, bolted to the side of the ship, were a number of huge steel bottles, the high pressure air banks, which were charged up to a pressure of 2400 pounds per square inch by a special four stage torpedo air compressor. Porter looked curiously at them. Both compressor and bottles had come from a dismantled submarine where they had formed the reservoir to supply air for the crew to breathe while she ran submerged, or to blow the water quickly from her ballast tanks and come up in case of emergency. Lieutenant Carroll had installed them on the *Lapwing* as a reserve supply of air to feed the divers in case the compressor broke down. Coming up from deep water is a slow process; Carroll could take no chances on having the air stop if the machinery failed.

Outboard of the forward boiler, Bob noticed a large steam pump with a brightly polished copper airbell on one end. He squeezed by the boiler to inspect it. A large sea valve connected its suction directly to the skin of the ship; its discharge line led to the deck overhead. Evidently it was the firepump, ready to suck sea water from far below the waterline, and discharge it in large quantities to the firemains on deck.

Bob crawled aft, clear of the boiler, stood a moment alongside the fireman, whose sweating body, stripped to the waist, glistened in the reflection of the flames as he opened the shutters to adjust the furnace fires.

Bob shrank from the fierce heat which blazed out, sought shelter in the breeze beneath the ventilator. The fireman closed the door, walked over to a bucket of water against the bulkhead, lifted it up, drank several quarts and poured the rest over his head.

"Can't get no wetter," he grinned at his visitor, "but this ain't nuthin', matey! These oil fires has made life easy. When we used to hafta heave coal into them boilers, them wuz the days when a stoker had to be a man! Too bad, firin's such a soft job nowadays a lot o' these deckhands are tryin' to get into the black gang. Times wuz diff'runt when a fireman had to swing a slice bar and heave a ton o' coal about every five minutes! We wuzn't bothered with no loafers then!"

"This looks enough like work to me." Bob wiped off a stream of sweat that was pouring into his eyes. "You'd never catch me advising anybody who's looking for a rest to ship for fireman, even on an oil burner. I guess I've lost ten pounds already; me for the topside and the ice box,—I'm going to crawl in and cool down!"

He climbed up the steep ladder through the uptake hatches, out on the deck, up on the superstructure. The fresh breeze sweeping freely across was a blessed relief from the scorching boiler room. For a brief space, he revelled in it, then slipped down the companionway to his room. Hastily he stripped off his soaked clothing, seized a towel, and jumped into the shower bath across the passage. A cooling spray, salty and

invigorating, came flying from overhead; Bob leaped about in it, thoroughly happy, feeling that he would never get too much of that refreshing flood. At last he came out, cool once more.

In his room he pulled a fresh suit of whites from the drawers under his bunk, slowly dressed himself as he thought over his morning's inspection. There was a great deal of special machinery in the *Lapwing* to fit her as a salvage ship; he could see where all his uncle's money had gone. Well, it would come back when they got to the *Santa Cruz*. His eye traveled casually to the shelf in his open desk where reposed his parchment covered volume. He stopped dressing suddenly, came out of his reverie with a start, jumped for his desk. Yes, he had seen correctly. The book was gone!

Hurriedly he ransacked the desk, spent the brief moment necessary to scan every spot in the tiny stateroom. There was no book. A thought struck him. Perhaps the captain had borrowed it.

Without pausing to finish dressing, he rushed in his bare feet up the ladder to the bridge, pushed into the captain's cabin abaft it without thinking to knock. Lieutenant Carroll, stretched out on his bunk reading, looked up in surprise at the intrusion.

Bob swept the desk, the bookshelf, in a glance. It was not there.

"Don Jaime's book! It's gone! Did you take it?"

Carroll sat up suddenly.

"Gone? No, of course not!" He paused a mo-

ment, startled at the question. "When'd you miss it?"

"Just this minute," responded Bob excitedly, "but I've been below all morning, and I really haven't paid any attention since last night. I don't know how long it's been gone."

Carroll's jaw squared ominously, his face grew dark.

"There's some crook in this crew after all. I guess it always happens. But he won't get away with this. Don't worry, Bob, he can't get it off the ship. I'll have the boatswain's mate search every diddy-box and every bag on the ship. We'll find it. And whoever took it'll spend the rest of this cruise where he won't bother us! Come on, Bob!" He started down the ladder. Bob followed him, thought he saw a shadow flit across the cabin door below as they emerged.

Hastily Carroll descended, Bob at his heels. They paused a moment before the open door to Bob's room, looked in.

Bob started. There on top of the open desk, in its former position, lay his precious book!

He jumped in, his bare feet trampling the heap of wet clothes on the deck, seized it, hastily turned the pages. Yes, there it was undamaged, lying as if it had never been touched!

The captain took it from him, beckoned him to follow to his cabin. They went up more slowly, Bob's heart beating violently as he climbed.

Above, Lieutenant Carroll closed the doors, looked

out his ports to see that no one lurked near, came back.

"What do you make of it?" he asked.

"Whoever took it felt he'd be caught and returned it before he thought it was missed, I guess."

"You're right, Bob, but that opens up a new situation. We've got to have secrecy for success on this job; somebody on this ship has horned into the secret. But it can't do him any good until we're successful, for on the *Santa Cruz*, the gold's as safe from theft as if it were in the Mint. Nobody can get it. Now what's this sneak after?"

"I don't know, captain. It certainly won't help him much."

"Still it could hurt us, Bob. If the news got out, the Peruvian government might try an expedition of its own. The *Santa Cruz* is sunk on the high seas so anybody's got a right to salvage her who can. Now if they came out in a warship and started diving, we couldn't stop them, but they'd probably chase us off by main force. That would be a tough ending for our expedition, wouldn't it?"

"Can't you catch him and put him in the brig where he can't do any harm?"

"I'm afraid not, Bob. The book's back, there's no evidence against anybody. Pretty slick, whoever did it. Now he's got the story, he doesn't need the book for he knows we'll locate the ship for him. No, the thing for us to do is to pretend we never noticed it was gone, just act unsuspicious, and make sure that no-

body we can't absolutely trust, gets ashore anywhere till we're back in Boston."

"Yes, but, lieutenant, remember that's a Spanish book. How about Pedro? He's the only Spaniard on board! Give him the third degree and I'll bet he'll confess!"

"Sorry, but I can't agree. Bob, lots of sailors learn enough Spanish in knocking around the world to read that book. We've probably got over a dozen aboard who could; they can get along nearly as well in a Spanish port as back in Boston. No, it wouldn't prove anything, and it'd let the cat out of the bag. We'll just have to watch our step, watch the crew, and keep a weather eye open for trouble. We're lucky to know about it; we can thank our stars you noticed it was gone before the thief had a chance to bring it back."

He leaned back in his chair, put his feet up on his desk, looked quizzically at Bob, then laughed.

"That's a new wrinkle, anyway, old man. When we were salvaging subs we didn't have to worry about anybody trying to steal 'em from us. With about thirty newspaper reporters on deck every day, our doings were just about as secret as the noonday sun." He thought a moment, then added, "Well, I guess that'll change our plans a bit. I'd meant to base on Guayaquil for a supply of fresh provisions as we worked, but that's all off. We keep out of all foreign ports this cruise and make no stops en route. We'll live out of cans as long as they last, and when they're

gone, I guess we'll have to go fishing for our grub."

He leaned backward, pressed a button alongside his berth. Fitz shuffled in.

"Tell the divers I want to see them in the cabin."

"Aye, aye, cap'n." Fitz went out the after door, went below. In a few minutes, caps in hand, the four divers crowded into the little cabin, ranged themselves alongside the chart table outboard, looked at Carroll expectantly. Carroll greeted each by his name as he filed in.

"Boys, a queer thing's happened. I told each of you when you signed on, we were going out to salvage a treasure ship. I didn't mention what she was nor where she lay; so far as we're concerned it didn't matter. But I warned you that the rest of the crew weren't in on anything; and none of us would talk about the trip. Nobody did?"

"Only between ourselves, captain. We ain't said a word to nobody else," affirmed Tom earnestly. "We ain't even talked it over when any other gobs was near."

"I felt sure you hadn't. Anyway, the cat's out of the bag. Sometime last night a Spanish book that Mr. Porter had that contained the sailing directions on getting to our wreck, was stolen out of his room. He didn't know about it till just before noon. Of course he came up and reported right away, but when we started down to search the ship, there was the book back on his desk."

Hawkins whistled. "You're bound to get some bad eggs having to ship a whole new crew!"

Tom Williams pricked up his ears:

"Spanish book, y'say, captain?"

Carroll nodded.

"Well, I think that Spaniard Pedro'll bear watchin'. He 'n that gob Carley have been thicker'n molasses ever since we sailed and they don't look none too good to me! I'd beach 'em, the next port we make!"

"Nothing doing, Tom. Besides, I haven't really anything to go on yet. Whoever stole it can't hurt us while he's aboard; the last thing I want to do is to put him ashore and let him make trouble. I'd like to know who took it, but only to make sure he doesn't get ashore. And unless we find out, we're not going to make port anywhere, even at the Canal."

"This guy won't jump no ship there," said Clark. "He'll stick till we hook the wreck anyway."

"That's my idea," agreed Carroll, "and after that the next port'll be Boston so there'll be no chance for any crooked business. Now I'm letting you in on this so's you can keep an eye out. If we spot him, he'll go in the brig to make doubly sure. Now maybe Pedro's guilty, but don't let him know he's suspected. I took him on as interpreter, figuring we'd base on Guayaquil, but I guess that's off. We'll have to base on what's in the hold now. There's the story, boys. Keep a sharp lookout to see who's putting his oar into this, and meanwhile we'll try to steer clear of trouble."

CHAPTER VIII

BOB'S AMBITION

THE weather continued fine, the sea smooth except for the long Atlantic swell that never dies. The *Lapwing* steamed steadily southward. The fourth night out it passed abeam the light that marks San Salvador, Bob staying up to catch a glimpse of the spot where Columbus finally bumped into the Western World. Further south, Lieutenant Carroll cautiously piloted through Crooked Island Passage, taking bearings on his pelorus of each light as it rose over the horizon, plotting them carefully on the chart.

"A navigator can't be too careful when there's land around if he wants to stay off the rocks," he explained. "Mighty few ships ever go aground except through boneheadedness. I was on the battleship *Texas* when I was an ensign, and the navigator piled her up on Block Island because he casually took a look at the first light they raised and assumed it was Northeast Light when actually it was a light on the south end of the island. So he turned to port, thinking he was clear, and he ran the ship 'way up on the beach. No, you can't take anything for granted when you're navigating."

Next morning they steamed through the Windward

Passage between Haiti and Cuba, and entering the Caribbean Sea, changed course a little to the westward toward Panama.

Under the burning tropical sun, they began the second leg of their voyage. The heat was intense.

"Keep out of the sun," Hawkins advised Porter, as together they stood on the forecastle to get the advantage of the breeze. "You're not tanned like the rest o' the crew that's sailed these seas before. The heat's diff'rent down here. Till y'get a tough hide, the sun'll burn right through your skin if you stand in it. Watch out, or you'll be wearin' bandages just like you've been in a fire."

Bob moved around where the bridge cast a shadow on the deck.

"Thanks, Joe. I'm particularly anxious to stay well on this expedition. It's for a special reason, and I've been wanting to ask you about it first; I haven't mentioned it to anybody yet. Joe, I want to dive on the *Santa Cruz!*"

Hawkins started to shake his head, but stopped when he saw the eager face watching him, and explained more fully:

"I don't know any reason you shouldn't make as good a diver as any of us, but it takes a lot of experience before it's safe to go exploring wrecks. I could teach you to dive all right but I wouldn't advise you working on this ship. Still I'll teach you how to manage a diving rig, and if the skipper's willing maybe

you can make some shallow dips. This is a deep job and the pressure's likely to put you away if you try to make the bottom."

Bob shook his head. "No, Joe, that's not enough. I'm going to see the *Santa Cruz* for myself. That's why I came. If I don't, the expedition's a failure so far as I'm concerned, no matter what we recover. You've got to help!"

The chief torpedoman looked carefully over the young man before him. Porter was bigger than he was himself; athletic too, for he had played half-back two seasons running on the Harvard team.

"Well, maybe you could do it. I know several gobs started diving younger'n you are now. One of 'em worked with me off Block Island; he was a bearcat too. You don't look excitable; keeping your head on the bottom's nearly the most important part of diving. I'll tell you what,—I'll show you how and after that, it's up to the skipper. You know, I've got a hunch he'll be O. K. He didn't know a thing about diving himself when I first met him, but he learned so's he could get down on the first sub we worked on and not have to boss the job from the topside. And he made a good diver before he got through. I think that's how he managed to put the job across. They hadn't had much luck raising subs before. Let's go down the fore hold. I'll break out a rig and show you what it's all about."

They descended the forecastle hatch, went forward

along the berth deck to the hold, lifted off the cover. Clark was drafted from the chief's quarters to help them. Hawkins dropped into the dark hold, armed with a flashlight, and shortly passed up to the two men overhead the various parts of a diving outfit. They dragged the equipment into the divers' room.

Martin and Williams who were stretched out on their bunks, clad solely in their underwear, each with an electric fan trained on him, looked up amazed as Hawkins started dragging in a helmet. Williams laughed.

"Holy mackerel, Joe, don't you get your fill o' that without haulin' one into your bunk?"

"Pipe down, Tom. You've got the wrong steer." Bob entered carrying a lead belt. "Boys, we got a recruit. Bob wants to be a diver!"

Martin leaped from his bunk, grabbed a towel, soaked it in a pail of water and with mock gravity applied it to Bob's forehead.

"Get him into his bunk quick!" cried Martin, holding Bob tightly. "It must be the heat! Maybe when he's quiet, he'll come out of it."

"Aw, lay off that, Frank," said Joe, pulling the wet towel away. "I mean it. So does Bob. He wants to see the wreck himself, and we're all going to help him. Of course, nobody's recommending diving as a safety first exercise but if Bob here wants to try it we'll teach him, and it'll be up to the skipper whether he goes down or not. Bob'll have to go up to the mast and get the old man's permission before he can go

overboard. Now the spectators'll pipe down while I show him what all the gear's for."

Martin crawled back in his bunk, and Clark pulled himself into the berth over it, leaving the deck clear.

Hawkins lifted a copper helmet and breastplate up on the table. It had four small glass ports in it,—one in front, one on top, and one on each side.

"There's a lot of machinery to a diving suit that you've got to operate without having to think about it," he said. "Now we'll start on the helmet. This connection on the back is where the airhose screws on to let the air in. Notice there's a safety valve on it that'll let the air blow in but won't let any blow out. That's so that if your airhose breaks or gets cut in half, the air that's left in your helmet can't escape. If it did, the sea pressure would squeeze you to death the way I explained the other day. There's always enough air in the helmet to keep you going about five minutes, so if you lose your air supply, the tenders can haul you up on your life line, and all you have to worry about is getting 'the bends' from having to come up without any decompression!

"Notice inside the helmet these four flat ducts that discharge the air right over the glass faceplates. That's to keep the glass from fogging up from your breath.

"Now here on the right side of the helmet, even with the neck, is the exhaust valve. You regulate it with this little wheel outside. A spring holds it shut and keeps the water from leaking in. Whenever the air

pressure inside gets above the point the spring is set for, the air lifts the valve and blows out into the water through this tube leading around to the back of the helmet. That's in back so the bubbles from the exhaust won't float up over your faceplates and prevent you from seeing.

"Now here on the other side of the back is a connection for the telephone. The telephone wires are cased inside a waterproof rubber cable that's also made strong enough to act as the lifeline for hauling the diver up. The end of the cable is screwed into the helmet here in the back, making a watertight joint with the telephone set inside. This round thing soldered inside the helmet just to the left of where your mouth'd be, is the transmitter. If you want to talk to your tender, you just turn your head and yell into it. A lot of good it usually does you."

Bob, who was following attentively, looked puzzled. "Can't he hear you all right?"

"Them telephone sets are mostly the bunk," chipped in Tom who was lying nearest. "There's so much noise from the air roaring through the helmet that when the tender talks to you, you can't make him out unless you turn off your air and you can't afford to do that much!

"The worst trouble though comes when you want to tell the tender something. If you don't shut off your air, he can't hear you. And then the chances are that after you've shut off the air, he can't understand you

anyway. It's a queer result of high air pressure that it mushes up your words and they all sound alike. The air's so heavy from being compressed that somehow it don't work right on your vocal cords and you sound as if you're tryin' to talk with a mouthful of meal. Whoever's listenin' on the topside has to have a fine imagination or he never makes out what yer tryin' to tell him."

"It's all so," added Clark. "Just to show how the air acts, you can't whistle no matter how hard you try. The air's too thick."

"The telephone's a help, but it takes teamwork to get a message through," continued Joe. "A diver usually don't waste his time talking. Unless a message is absolutely necessary he keeps quiet, and so does his tender, 'cause it's nearly as much of a job for the diver listening to a message as it is talking.

"Anyway, there's the transmitter soldered to the helmet. You wear a pair of earphones strapped over your head like a radio headset; that plugs in here alongside the transmitter.

"The rest of the rig's simpler. Here it is," and he pulled the diving suit up on the table. It was a watertight union suit, made of rubber, covered inside and out with white duck, and fairly flexible. The feet were made as part of the suit, with extra canvas for reenforcing; a heavy flat rubber collar, nearly half an inch thick, with small holes punched in it, finished off the top. Hawkins explained that the diver slipped into

the suit through this collar, entered his feet in the legs, and then worked his hands down the canvas arms. The most difficult task in putting on the suit lay in getting the hands through the tight rubber cuffs which made the watertight seal around the diver's wrists.

"They're such a tight fit that you always have to soap your hands, or they'll never slip through," said Joe, as he exhibited the cuffs. "Then the tenders slip on a tight rubber band over the cuffs to make sure they don't leak. And that don't make the work any easier, for it shuts off the circulation of blood in your hands, and they get numb pretty quick. In cold water, your hands'll freeze in a hurry; so you wear watertight gloves cemented to your sleeves instead of cuffs, but it's mighty unhandy working with watertight gloves. Either way you take it, cuffs or gloves, the poor old diver's up against a tough proposition, but I guess the gloves are the worst."

Hawkins showed how the copper breastplate was slipped over the diver's head and bolted tightly to the rubber collar; how the helmet was next slipped on and locked to the breastplate by a quarter turn on an interrupted screw joint, just like the breech plug of a naval gun. Next he described the rigging of the diver's weights and why they were required,—the lead-soled shoes weighing twenty pounds apiece and the sixty pound lead belt.

"The helmet's always full of air and it's buoyant in the water; it'd float right up over your head as soon

as you submerged. To hold it down on your shoulders where it belongs, you have this leather harness, like the Sam Browne belt they wear in the army; it goes over the breastplate and hooks to your lead belt, which is heavy enough to hold it down, but to make sure, this leather strap from in back of the belt goes down between your legs and is buckled up tight to the belt in front. Then when the lead shoes are buckled on you, you're loaded with about two hundred pounds of ballast and you can hardly stand up till you're in the water. There's two reasons for the belt and the shoes. The main one is that you've got to have air in your helmet and in your suit over your chest if you want to breathe, but that much air makes you so light when you go over the side that you float; you've got to put on weight to make you heavy so's you'll sink. Now you could do it just by putting all the weight in the belt, but it'd be dangerous. If for any reason, you lost your balance and fell down, the air in your suit would go to your legs and you'd turn upside down with your heavy helmet acting as ballast on your head, and no way of getting your buoyant feet down again. And that'd be your finish!

"So to prevent that, a diver always wears lead-soled shoes to keep his feet heavy, and in addition, we lace the legs of his suit up tight so they can't balloon out on him when he lies down to work."

Hawkins showed how the airhose connection from behind the helmet is brought under the diver's left arm

and the hose lashed to his breastplate there to take the strain off the helmet. He pointed out the working of the control valve inserted in the hose just above the right breast, by which the diver can regulate the amount of air admitted to his suit, or shut it off altogether if he wished to talk.

"That control valve's mighty important, Bob. Depending on how much air you let into your suit and the back pressure you keep on the exhaust valve, you can make yourself so light in the water that you can jump ten feet high if you want; or you can make yourself so heavy that the tenders can hardly haul you up. There's danger both ways. If you get too light, you start to float up, your suit balloons out as the water pressure decreases, you get still more buoyant, and go shooting for the surface like a rocket, without any decompression. If you've been down long enough to soak up any air, your blood'll be full of bubbles when you hit the surface, and 'blowing up' from deep water's nearly the worst thing that can happen to a diver.

"Now if you're keeping yourself too heavy and you happen to fall off the boat or step into a hold in the wreck or something like that, you'll sink like a shot and the increase in pressure'll give you a 'squeeze' that'll kill you. So it's bad both ways, and you've got to keep your air adjusted right or you won't be a diver long."

Hawkins paused in his explanations to turn the fan

temporarily from Williams and cool his own perspiring face.

Frank Martin sat up in his bunk and turned the other fan on Bob. "Diving's a tough game, boy. Workin' in the mud most o' the time all by yourself. Usually you see mighty little while you're down, and if you make a mistake, it's most likely your last one. Joe ain't told you half o' what can happen while you're down. But I'll tell you this,—a cool head's the best friend a diver's got. If he loses his bean when he's in trouble, he'll kill himself in a few minutes strugglin' under all that pressure. You wanta go along with it?"

Bob nodded. "If I didn't, Frank, I would have stayed in Boston. I'm going through the *Santa Cruz* with you. Come on, let me try on that rig." He pulled off his shoes; Martin rolled out of his bunk to help Hawkins. Soon Bob found himself completely dressed except for the helmet; then that was put on him with the faceplate open so he could breathe. He tried adjusting the exhaust valve with his right hand, turned the air control valve with his left, then started to rise from his stool. He staggered under the load of his helmet and belt,—Frank hurriedly steadied him by grasping the belt and taking part of the weight.

"That's enough!" cried Joe through the faceplate. "Sit down!" and shoved the stool in behind him again. Bob seated himself heavily and his two tenders hastily undressed him. With his helmet off, Bob turned grinning to Williams:

"It feels like trying to take the ball over the goal with a couple of Yale tackles round your neck, another one round your waist and a linesman's hanging onto each foot. But I guess the rig hasn't thrown me for a loss yet; I can carry it."

CHAPTER IX

INTO THE PACIFIC

Bob worked in the cabin for several nights, making an accurate copy in Spanish of the two chapters of "Un Caballero en Peru" which dealt with Don Jaime's voyage in the *Santa Cruz*. Then the original was locked in the captain's safe and the copy locked in his desk.

"They're safer up here," declared Carroll. "My cabin's just abaft the bridge and there's always someone on watch there. It's not so likely anybody can go exploring in my room without getting nailed at it."

Porter heartily agreed with him, and it was with considerable relief that he turned over the precious book to his friend for safekeeping.

"Maybe it wouldn't have been any good to anybody unless he could get ashore with it," said Bob, "but it would have cooked our goose if he'd thrown it overboard to avoid being caught with it when we searched the ship. We didn't have another copy then."

Carroll laughed. "Don't fool yourself, Bob. I've been in the game long enough to know that it's always wise to have an anchor out to windward. The first time I ever saw that book, I made a little chart showing the *Santa Cruz'* positions from the day she left port,

her dead reckoning position until Drake sighted her, her course towards the beach, the soundings, and the bearing of the sun over that headland when she blew up. The chart was in my safe all the time, and that'll take us to her without the book."

Porter gazed with added respect at the skipper. Evidently it was no accident that he had previously been so successful.

"When I was a midshipman back at Crabtown, we had as an instructor in seamanship a grizzled old boatswain's mate who must have sailed with John Paul Jones. And he kept drumming into us whenever we rigged lines for lifting or hauling anything, 'Young gentlemen, a good seaman always puts on a preventer.' It's a wonderful habit, Bob,—whenever you're working a line that anything depends on, always put on another line as a preventer to take the strain in case the first hawser carries away. I'm one of that old sailor's 'young gentlemen' that wouldn't be talking to you now if it hadn't been for unconsciously following his advice on several occasions."

Next morning they approached the Canal. Before entering the harbor, the captain called the four divers into his cabin, instructed them to see that no one left the ship and that no casual visitors came aboard, then posted them, two on each side as a special watch for the transit.

They steamed into port and the *Lapwing* dropped anchor a brief period till with a large tank steamer,

they were ordered to get underway and entered the locks, passed quickly through, rising step by step till they emerged at the Canal level. They passed through the cut, tropical jungles lining their route. At Balboa they were locked down and without a pause steamed out into the ocean to the evident surprise of most of the crew who wasted no words in expressing their disappointment to each other as they watched Panama, a fine port for a liberty, sink below the horizon astern.

But it was with marked relief that Lieutenant Carroll found himself finally in the Pacific, headed south again on the last leg of their voyage, and Porter found him considerably more light-hearted as they lost sight of land and were once more alone in the midst of the rolling sea.

"We're safe now, Bob," he confided, as together they leaned over the starboard bridge rail and watched the burning path of flame leading across the waves to the setting sun. "Nothing happened in the Zone. Nobody came aboard but the pilot, and not a man had a chance even to talk to anybody in a boat. We won't have to worry any more,—we're out of the steamer lanes near El Morro. It's uninhabited and a ship never passes there from one year's end to another. Now I can turn to on locating the wreck."

"But you know just where she is, don't you, lieutenant?"

"Within a couple of miles maybe, but we can't rest on that. Don Jaime says they were a league offshore,

with the sun just setting over a headland on the north end of the island. Do you know what that means to us, Bob?"

Porter, looking at the sunset, shook his head. "I suppose it'll give us the time of the day that she blew up, but as that was a few hundred years ago, I imagine a few hours more or less don't mean much now."

"You're right on that, but 'way off on what it means. That line about the setting sun is the most valuable direction Don Jaime left us; it's going to give us the exact bearing of the wreck from the island. We know the approximate distance and that'll show us where to sweep."

"I see," said Bob, "the sun sets in the west, so if we go east three miles from El Morro, we'll be there."

"I'm afraid it's not so simple. The sun sets in the west all right, but not exactly, and it varies every day of the year and from year to year. We've got to have an exact bearing if we don't want to spend months sweeping all over the ocean for that wreck. Getting that bearing exact is a complicated problem in spherical trigonometry, and I can't solve it till I see El Morro Island, though I've got most of the other data. Do you know what working out that bearing required?"

His listener admitted ignorance.

"Well, the sun's got what they call 'declination' which is one of the factors we use in navigating. If I wanted to check my compass against the bearing of the sun this afternoon, I'd take the sun's altitude with my

sextant and note the time; then pick the sun's declination for today at the minute I took my sight, out of the 'Nautical Almanac,' get my latitude from our dead reckoning, and then work out a spherical triangle that'd give me the azimuth, or bearing, of the sun at that time.

"Now I've got to work out the same problem for the evening the *Santa Cruz* blew up. Unfortunately there wasn't any 'Nautical Almanac' published for navigators in those days, but I got a classmate of mine at the Naval Observatory in Washington to figure out for me what the declination of the sun was on the night of March 18, 1579, when the *Santa Cruz* sank. That was some problem in itself, but they finally worked it out and I've got the angle in my desk.

"I computed the latitude myself by the dead reckoning run of the *Santa Cruz*, and I can check that when we get there. The one thing I can't find out at all yet is what the altitude of the sun was when Don Jaime last saw it over that hill, but as soon as we arrive, I can measure the height of that point above the sea and then figure out what altitude the sun would have had seen from a ship's deck about twenty feet above the water and three miles away.

"Then when I've figured out a lot of cosines, secants, and square roots of all those angles, I'll have the azimuth or the true bearing of the sun, and that'll give us the correct line to sweep out from the island to find our ship."

"I guess poor old Don Jaime never guessed there was so much math in that glimpse of the setting sun he got when he was blown overboard," mused Bob. "I've had some trig in school myself, but I'm afraid I'd be lost chasing 'Old Sol' through the sky, trying to find out just how he bore when he set over a hill on a Pacific island a couple of centuries ago."

The sun had set, the brief twilight vanished. The *Lapwing*, alone in the darkness, moved steadily on. Neither man spoke further. Only a faint gleam in the binnacle over the compass card shone in the charthouse as the helmsman slowly maneuvered his wheel to hold the ship to its course. Below, clearly visible from the wings of the bridge in which they stood, the sea foamed and sparkled with a phosphorescent glow as the waves parted under their bows. Points of light seemed to flash up suddenly as the billows curved away, gleam brightly for an instant, vanish in the deep blue of the water. A luminous streak ran past each side, disappeared in the brilliant wake astern.

Bob watched fascinated as the ship heaved easily to the long swells rolling in from the westward,—undulating waves which seemed to burst into a sea of blue-white fire as they met the *Lapwing*.

Overhead the tropic stars burned against the background of a moonless night,—low in the sky the Great Bear was still visible above the North Star which shone dimly astern, barely above the horizon, soon to disappear altogether as they neared the Equator.

Porter felt his blood tingle as he drank in the scene; the magic of the tropic sea intoxicated him with its strange beauty; his thoughts raced on ahead of the *Lapwing* to the south where wealth, adventure, and the *Santa Cruz* lay waiting for them at the bottom of the sea.

CHAPTER X

EL MORRO ISLAND

MORNING of the third day since leaving Balboa, found Porter and Lieutenant Carroll anxiously scanning the horizon ahead. For two days they had steered South by West heading for Long. 83 W., Lat. 3 S., which was the position Carroll had estimated as the location of the wreck. The charts bore no island of the name Don Jaime gave; an unnamed island well off the coast appeared as the only possible spot. Would its appearance coincide with the narrative they had and prove the truth of their story? They strained their eyes sweeping the sea ahead with their glasses. The clear rim of the distant horizon remained unbroken.

Carroll put down his binoculars, rubbed his eyes. He walked over to the chartboard, took off with his dividers the distance between their own position and the location of their destination, scaled it off.

"Only twenty miles now. If there are any hills on that island we ought to pick 'em up. If we don't soon, the chances are the island's flat and if that's so, I guess Don Jaime'll turn out to be some Spanish relative of Baron Munchhaüsen."

Both Porter and Carroll looked again but without result. The ship steamed on.

Carroll looked toward the helmsman:

"Are we on our course?"

"Steady on South by West, sir!"

Bob looked glumly ahead. A fine time he'd have back in Boston if their first glimpse of El Morro proved the story false. He searched again. Still nothing ahead.

Carroll noticed the look of disappointment gathering on Bob's face, endeavored to cheer him a bit: "It'd be a great joke on the gob who tried to steal that book, wouldn't it, Bob? We could give him the book for a souvenir and tell him we really came south on a fishing trip." But in spite of his raillery, he inwardly began to feel as down-hearted as his companion. Again he measured the distance on the chart. Eighteen miles. He picked up his binoculars, walked towards the rail.

"Land ho!"

Bob jumped, stared up at the crow's nest where Hawkins was leaning far out.

"Thank God!" murmured Carroll under his breath, then looking up shouted, "Where away?"

"Dead ahead!"

Bob raced excitedly up the mast, clung to the cross-trees just below the crow's nest with one hand, levelled his glasses ahead with the other. There, looming up on the horizon, clear-cut like a solitary spar buoy, a pinnacle projected above the sea. As he watched a vague line, like a distant cloud, seemed to form below

it, then grew darker. Their island, just as it should be!

He came down, feeling after his recent gloom as if he were treading air. "It's right, captain, there's a high point, exactly as it was described!" Gleefully Carroll shook his hand.

In another hour the island was in plain sight, a low-lying bit of land, possibly a mile around, covered with a thick growth of palms and vines running down to a white beach outlined by the breaking waves. But standing out sharply from the low island, a mass of rock rose perhaps a hundred feet above the northerly end, vaguely suggesting a castle, which no doubt had led the Spaniards to label it "El Morro."

Slowly the *Lapwing* circled round it, leadsmen in the starboard and port chains constantly taking soundings to make sure they kept out of shoal water. From a distance of half a mile off shore, Carroll and Porter examined the island closely through binoculars as they steamed around, while the sailors below lined the port rail and scanned the strange beach curiously.

The leadlines whistled through the air, splashed into the water near the bow, were heaved up and down. "By the mark five!" varied with the call, "And a quarter five!" came the reports from the chains as the *Lapwing* at "1/3 Speed," crawled slowly along, the quartermaster standing by the engine telegraph ready to ring up "Full astern" should the water suddenly shoal. Below, Bill Clark, the boatswain's mate, stood

by on the forecastle ready to drop the anchor instantly should need arise.

The ship made a complete circuit of the island. A sandy beach all around, no inlets, no signs of habitation, met their gaze. Back again on the eastern side, Carroll conned the ship in very slowly till the leads showed a depth of only four fathoms, then ordered, "Stop!"

The quartermaster swung over the telegraph, the slow throbbing of the screw ceased.

"Let go the port anchor!" sang out Carroll.

A sledge in Clark's hands fell, knocked apart the chain stopper. With a roar, the anchor dropped from the hawsepipe, the iron cable banging over the wildcat as the chain links raced out. The anchor hit bottom, the cable ran out more slowly. Clark set up the brake, the wildcat stopped turning and a strain came on the cable as the *Lapwing* brought up slowly on her anchor and came to rest.

They had reached El Morro. The voyage out was completed.

CHAPTER XI

THE SEARCH

On the bridge, Lieutenant Carroll, with his sextant to his eye, was carefully measuring the angle between the beach and the pinnacle of El Morro. The helmsman and the lookout had been relieved and gone below,—only the quartermaster and Bob remained to assist. Bob jotted down the angles as Carroll took three independent readings, then averaged them.

The quartermaster, with a small range finder, measured the distance to the rock. "Six hundred and twenty yards," he announced.

Carroll went to his cabin for his "Bowditch," worked a few minutes with the logarithmic tables in it, and gave out the result.

"El Morro is one hundred and twenty feet high. Now let's see what altitude an object just visible over it seen three miles away from a height of twenty feet has."

He figured further. "Well, it's a little less than half a degree, but I'm going to use that. It'll be close enough, since the altitude is small anyway, and a minor variation won't affect my main problem." And he plunged into the solution of the altitude azimuth equation, using the declination he had obtained from the

Observatory, the latitude of the island, and the altitude he had just determined. After a few minutes' work, he had it.

"On March 18, 1579, when the sun set over El Morro, it was bearing South 87° 23′ West," Carroll announced. He picked up his parallel rulers, set them to that angle on the rosette, and then shifted the rulers across the chart till one edge passed through the point where El Morro had been pricked. He drew a fine line along the ruler to the eastward, measured out along it three miles, and pricked the chart again. Bob watched him, totally absorbed as he marked and measured.

"There's the *Santa Cruz*," remarked Carroll finally as he drew a small circle round the last point. "Now all we have to do is to hook her."

Bob clapped him on the back enthusiastically, but Carroll hastened to damp his ardor. "Don't cheer yet, old scout. We'd have lots of trouble sweeping even if we knew exactly where she lay; I doubt very much if the position we have here is right within half a mile. How do you think Don Jaime knew he was a league away from El Morro? They didn't have range finders in those days. He just guessed it, and remember he was guessing in the middle of a battle, with Drake's ship pouring a hot fire into the *Santa Cruz*. He wasn't likely to be any too accurate in his estimate of distances. But we do have their soundings, and we'll hit it as close as we can before we drag."

Eight bells struck.

"We'd better let all hands have dinner, before we tackle anything else." They descended to the mess-room, seated themselves near the port door, where they could watch the surf foaming up the beach not far off. The dull roar of the breakers came clearly in.

"That's a soothing sound," said Porter. "I imagine we'll have that to lull us to sleep for some time."

"Perhaps, but if I'm any prophet we're all going to be so dog tired when each day's work's done we won't need any lullabys." The messboy came in with the dinner. "Hello, Fitz, got your fish hooks broken out?"

"Yes, suh, Ah'm all set. Does we stay heah long?"

"A while, Fitz; I don't know how long yet." He turned to Bob. "We'll get underway again right after dinner and run a line of soundings out on that bearing from El Morro. Then we'll run two more lines of soundings on bearings five degrees to the north and five degrees to the south of what we think is the true range, and that'll show pretty well how the bottom slopes."

The meal passed quickly, both men anxious to verify their data. At two bells, the Lapwing heaved in her anchor to short stay and steamed slowly north.

Lieutenant Carroll, at the port pelorus, sighted carefully on El Morro till it drew nearly abeam, then ordered the ship swung slowly to starboard till the *Lapwing*, heading away from the island, steadied on a course of E ¼ N, with the pinnacle of El Morro directly astern. Carroll left the pelorus.

"Quartermaster! Man the pelorus now and see the helmsman holds that rock dead astern as we run out. I'll man the range finder. Bob, you note down the range I give you each time we get a sounding. In the chains there! Start the leads!"

The captain shipped the rangefinder over the starboard pelorus and swung it aft. He leaned over, glued his face to rubber eyepieces, started to turn the adjusting knobs.

Bob, notebook in hand, looked over the side. In the starboard chains, the leadsman whirled the sounding lead three times in a large circle, then as it came up the third time, let go the toggle and the lead whistled forward in a high curve over the stem, hit the water half a ship length ahead and disappeared. The line ran out rapidly for a moment, then as the chains came up over the spot where the lead had sunk, the leadsman heaved in rapidly till he felt the weight of the lead and slacked out again till he touched bottom once more.

"Eleven fathoms starboard!"

Carroll gave the range finder a final adjustment, called out:

"Twelve hundred and sixty yards!"

Bob noted down the readings.

While a seaman assisted the leadsman in hauling in the starboard sounding line, the man in the port chains hurled his lead, and hastily plumbed it up and down as the ship caught with it.

"Thirteen fathoms port!"

"Fifteen hundred yards!" reported Carroll.

The soundings increased steadily till at four thousand yards—two miles out—the leadsmen were unable to run out enough line to get bottom before the ship swept by the up and down point.

Carroll jumped to the voice tube, called the engine room: "Dead slow speed! Just enough revolutions on the engine to keep up steerageway!"

The *Lapwing* slowed, the helmsman had to use wider swings on his rudder to hold the course, but the leadsmen were once more able to get bottom. With the quartermaster at the pelorus conning the wheel, the *Lapwing* barely moved through the water, as the soundings gradually ran up and the ship neared the three mile mark.

"Twenty-eight fathoms starboard!"

"Fifty-six hundred yards!"

A pause.

"Twenty-nine fathoms port!"

"Fifty-eight hundred yards!"

Porter started a fresh page.

Splash! The starboard lead whizzed out. Carroll started to adjust his rangefinder.

"Thirty fathoms starboard!"

A final twist on the wheel. Carroll read the distance carefully.

"Sixty-one hundred yards!"

Bob looked at the skipper triumphantly. "It checks almost exactly at three miles!"

Carroll nodded, his face still glued to the eyepieces: "Yes. Old Don Jaime was a pretty good judge of distance."

The other lead ran out.

"Thirty-two fathoms port!"

"Sixty-three hundred yards!"

The starboard lead failed to make bottom on the next cast. Carroll stopped the engine, let the ship drift while the lead came in and the port lead managed to sound.

"Thirty-eight fathoms port!"

"Sixty-six hundred yards!" called out Carroll.

"Off the course!" reported the helmsman. "She won't steer any more!"

"Still on the bearing!" sang out the quartermaster, whose pelorus showed El Morro still bearing W ¼ S.

"We must be drifting sideways," explained the captain. "In the chains there, try another cast!" He turned back to the rangefinder.

The ship lay practically dead in the water, a point off her course. The starboard leadsman let go his line without the need of heaving it ahead; it ran out rapidly beneath his feet, came slack in his hands. He heaved it up and down a second, then called out:

"Forty fathoms starboard!"

"Sixty-seven hundred yards!" Carroll looked over the bridge rail. "That'll do in the chains for a while." The dripping leadsmen crawled in on deck.

The captain stepped to the engine telegraph, rang

up "One-third speed." As the ship slowly picked up steerage way he ordered:

"Full right rudder! Head back for the island!"

He moved over to Porter's side and examined his notes with interest. "No use sounding out any further. She's sloping away too fast. The last sounding is only half a mile beyond that league that Don Jaime estimated, but the water's ten fathoms deeper. Lucky they didn't blow up there. Thirty fathoms is plenty bad enough!"

The *Lapwing*, heeling slightly in her sharp turn, came about and headed for El Morro. Half a mile from it, she turned once more and headed out again, this time on a bearing half a point to the southward of her first run. As before, Bob noted the ranges and soundings; they were practically the same as the first set, except that beyond the three mile mark, the depths did not drop off so quickly and soundings were taken out to four miles before reaching the forty fathom line.

The *Lapwing* swung round from the second run and once again steamed back to her starting point.

Taking a new departure from the pinnacle of El Morro, the ship steamed out heading E ¾ N, half a point to the northward this time of what was considered the true bearing. The soundings ran nearly as before until the range reached two and a half miles when the depths increased so quickly that the ship was forced to stop to permit the leads getting bottom,

and the leadlines read forty fathoms a little inside of the three mile mark.

The *Lapwing* turned to starboard and moved slowly to the southward until El Morro once again bore W ¼ S; then Carroll steamed in on that bearing, taking ranges on the pinnacle as they approached with the quartermaster working the rangefinder.

"Forecastle there! Stand by the anchor!" shouted the captain. The boatswain's mate uncoupled the clutch, and a seaman manned the brake on the wildcat. When the slow-moving *Lapwing* brought El Morro exactly 6000 yards away, a sharp "Mark!" came from the quartermaster.

"Let go!" The brake was slacked, the anchor chain rattled out. Carroll swung the telegraph to "One-third Astern." With a quiver the propeller reversed and the sea foamed up under the stern; the ship slowed suddenly. Again the telegraph swung, to "Stop" this time, and the *Lapwing* came to rest. A hundred fathoms ran out on the cable before Carroll ordered it secured.

Carroll looked over the side at the sea, still foaming up abeam. He turned to Bob.

"Well, here we are, exactly where the *Santa Cruz* blew up. And the next job is to find her."

He leaned over the forward bridge rail. A little group was engaged in putting the chain stoppers on the cable.

"Boatswain's mate!"

Clark looked up, saluted.

"As soon as you're secured, lay aft and get both boats cleared away for lowering. When they're over tie 'em up astern, and we'll get 'em fitted out in the morning!"

"Aye, aye, sir!" Clark bent again over the task of setting up the pelican hook stopper, to take the strain off the wildcat.

Bob looked round. It was late afternoon. The sun, low in the west, hung over the distant island. The *Lapwing* pitched gently to her anchor as the long Pacific swells rolled by. A few gulls, attracted by the strange vessel, circled round their stern. But aside from them, no ship, no signs of life, showed within the wide expanse of sea, and gazing at the peaceful scene, Bob found it difficult to imagine that once on that spot the *Santa Cruz* had battled to her death.

CHAPTER XII

SWEEPING

Two bells struck in the morning watch, echoed over the silent ocean. A boatswain's pipe shrilled, a hoarse voice bellowed:

"Lay aft all the boat's crew!"

A knot of sailors round the coffee pot in the messroom broke up hurriedly, ran down the starboard passage and over the fantail to the stern where they tumbled down a short Jacob's ladder into the boats. The boatswain's mate followed into the surfboat, while Tom Williams dropped down to take charge of the larger motorboat. The boats were hauled to the starboard beam by their painters, and the grappling hooks and lines passed over the side, together with several small buoys and anchors.

Lieutenant Carroll gave the final orders:

"Bill, you and the surfboat move four hundred yards offshore from the *Lapwing* and sweep on an east and west course on our south side, moving away from us about five yards on each swing till you've swept a path a hundred yards wide. Tom, you have the motorboat sweep on the same course, except you work inshore from us four hundred yards. Plant a marker buoy, both of you, where you start sweeping and I'll plot out

the areas you've covered as you go along. And if you hook anything, get a buoy over immediately to mark the spot in case your grapnel lets go before the *Lapwing* gets there. That's all. Shove off!"

The flywheels on the engines, yanked by ropes wound round them, spun round, the engines sputtered, then started firing evenly. In the surfboat outboard, the engineer shoved forward his clutch, Clark jammed his tiller down to port, and the surfboat leaped away in the early dawn. The heavy motorboat got away much slower, but soon straightened out and headed towards the beach.

In the sternsheets of the surfboat, Clark eased the helm, and keeping an eye on the small boat compass, ran due east. Meanwhile two seamen seized the grappling hook and held it poised on the starboard quarter while a third stood by the marker buoy anchor. The boatswain's mate looked aft toward the ship.

"We're far enough. Stand by there!"

"Let go the marker!"

The anchor splashed overboard, dragging a small line with it; when it ceased running out the buoy was tossed overboard. A few yards beyond, Clark gave the rudder a hard sheer and the boat spun round rapidly. At slow speed, he steered past the buoy headed for the *Lapwing,* and as they drew abreast the marker, the grappling hook was released. The manila line attached to it uncoiled rapidly and disappeared over the stern. When a hundred fathoms of line had run out,

Clark belayed the rope on the samson post near the tiller. As a strain came on the line and it tautened out astern, the surfboat came to a stop as if anchored, the engine labored, and the propeller churned up a cloud of spray.

"Give 'er the gun!" cried the coxswain. The engineer pulled his throttle wide open. The line straightened out like a bowstring, stretched a bit, then the grappling hook broke ground and the boat started slowly ahead.

Gradually they neared the ship, Bill Clark alternating his gaze between the strain on the line astern, and the course he was steering. Holding the boat on the right heading was much harder with a long line out, and took most of his attention; the engineer carefully nursed along his heavily loaded engine; but the boat's crew, with nothing to do, stretched out on the thwarts.

They came once more abeam the *Lapwing*. Clark held on till his hook astern was well abreast the ship, then made a wide turn to port to avoid fouling his screw and started a sweep to the eastward, keeping a little away from the path he had first dragged.

Slowly the morning wore on and the sun grew hotter. Back and forth off the bow and the stern of the *Lapwing*, the two boats dragged their grappling hooks over the ocean bottom, gradually working away to the south.

On the bridge, Carroll cut in the ship's position on the chart, took ranges and bearings on the marker buoys, and plotted them also.

Bob watched the boats anxiously, especially as they swept near the ship, but as the hours passed and the boats continued their monotonous trips to and fro, he became restless and started to pace the deck nervously. But Lieutenant Carroll, working on the bridge, paid no attention to the boats. He finished the smooth log of the voyage down, checked up the bunker oil and the fresh water on board, and figured roughly how long they could stay at sea before their fuel and water ran out. At anchor, they would use very little power and could cut out one boiler, steaming easily with only one burner on the other. At that rate, they should be able to keep going for three months; if they weren't through then, he would have to risk running into port to refuel.

He looked down on deck. Hawkins was directing several seamen in stretching the quarterdeck awning; they already had the awnings rigged over the forecastle and down both sides of the deck.

"Great idea," thought the skipper. "It'll keep the quarters below a lot cooler. I'll have to see they rig the superstructure awning over my cabin."

On the forecastle, Martin and another group of sailors were connecting up diving hoses. Martin himself inserted the leather washers in each joint, supervised while the men tightened the joints, stretched the hoses out on deck, and ranged a lifeline alongside each hose.

Every few feet, the men stoppered the hose and lifeline together with marline, except the last fifty feet

which were to be attached to the diver. This section of the diver's lines was encased in a canvas sleeve, drawn tightly about the lifeline and airhose, and carefully sewed up with palm and sailor's needle. This precaution was to allow as little chance as possible for the lines near a diver to foul in anything while he was working on the wreck,—a trick in rigging up which the men had learned on their submarine jobs. When each line had been made up to a length of six hundred feet, Martin coupled it to the air manifold and put on an air pressure, while he tried the joints with soap and water. The few joints which showed leaky were carefully tightened up, and only after no bubbles at all showed up, were the long hoses coiled up and taken aft to be hung abaft the deckhouse ready for use.

Hawkins and his men finished the awnings, opened the fore hold, and soon a stream of diving helmets, lead belts, shoes, lamps, and diving gear flowed up on deck and aft to the fantail, ready for use.

Meanwhile on the after end of the superstructure, the electrician was rigging up the telephone sets, testing out the cables, headsets, and batteries; while down below the chief engineer slowly turned over the air compressors and tuned up for supplying compressed air.

All over the *Lapwing*, the crew toiled, rigging the ship for working on the bottom. The booms were guyed out over the passages, the diving stages assembled, the winches warmed up and oiled. A machinist tested out the gauges while the pressure on

the diving mains was gradually built up to a hundred and fifty pounds. Nothing was left to chance; each piece of machinery, of equipment, was carefully tried out.

Off the beam, the two boats dragged their endless ways, first eastward, then westward, each time a little farther from the *Lapwing*, from the buoys which marked their starting points. Easily they rode the swells, the strain on their grapnels holding down their sterns, but they made no strikes and when noon rolled round the object of their search was still not found. Each boat dropped another buoy to mark the ground it had covered, buoyed off its grappling line, and ran alongside the ship. The men clambered aboard, hot and hungry. Carroll greeted the two coxswains at the rail; their reports were identical:

"Not a nibble, captain."

After dinner, the boats went out again, with fresh crews but the same coxswains. All afternoon the sputtering of the engines, coming across the water showed the boats still at their tasks. Darkness came, more buoys were dropped to mark the stopping points and the boats came in for the night.

They had covered an area half a mile long and nearly an eighth of a mile wide; six little yellow cork floats dotted the sea to show where they had searched. But they had hooked nothing and Porter was plainly disappointed.

Early next morning, the sweeping started again,

working once more to the southward. By night, the boats were fully half a mile away from the ship, but it was the same story,—no strikes.

The third morning, Carroll started the boats sweeping on the north side of the *Lapwing*, and this was kept up all that day and the next but without result. On deck, the crew was getting restless. The work was all done, the diving gear all ready, the men no longer had anything to do but stretch out on the piles of hawsers on the fantail and watch the slow-moving boats weaving their way over the waves.

Carroll himself became a little anxious. He checked over all his calculations, took anew the bearings and the ranges, but found nothing wrong. They were anchored in the proper spot as accurately as the data Don Jaime gave would allow. The boats had scraped the sea for nearly a square mile, and certainly the *Santa Cruz*, if she was anywhere, was inside that square.

The captain changed his tactics. The fifth day he started the two boats dragging in the north and south direction, at right angles to the courses they had previously worked on. Possibly the *Santa Cruz* had sunk still headed west; if so, she would be lying broadside to the new direction and a grapnel would catch her more easily.

Again the boats started close aboard the *Lapwing* and worked away from her, going the second time over the sea bottom they had once dragged,—but in spite of

careful sweeping, four more days went by, they had thoroughly scoured the bottom twice, and they had discovered nothing.

Bob kept to himself as much as possible. He was beginning to lose hope. Even if the ship had been there, perhaps in the hundreds of years which had gone by, she had fallen to pieces or sunk in the mud,—in either case there was apparently nothing left for a grappling hook to seize. And when the eighth day's search was over and the boats came back again, he began to realize that the expedition had reached an inglorious end. A tough condition to have to explain back home. But at least Major Houghton would understand. "Lucky for me the major had such a clear head on this thing," he thought to himself. "If it were anyone else, I guess I'd never hear the last of it."

In the cabin while they had their dinner that night, he voiced his fears to Carroll, but Bob was glad to hear that the skipper did not agree with him.

"Cheer up, old man, we're going to wear out half a dozen grappling hooks around here before we call it quits. And the first two have hardly had the galvanizing rubbed off 'em yet.

"This dragging is a rotten job. I know for a fact that you can sweep right over a wreck time after time without catching her, but if she's there, you will sometime. I was a little worried over whether we had the right position, but everything's O.K. there. I've care-

fully watched the sun set every night we've been here and that bearing over El Morro is a fine mark. Of course it doesn't set right over the rock from where we are now, because it's later in the season than when Drake finished the Spaniards off here, but Don Jaime couldn't have made any mistake on that."

"But suppose she's fallen to pieces?" asked Bob.

"I doubt it. It's remarkable how long wood lasts in deep water, where the teredos can't get at it. No, if she was ever there, she's there now, and we're going to find her. But I'll try a new tack tomorrow that ought to fetch her."

Porter looked at him questioningly. "If it's so good why didn't you use it in the beginning? What is it anyway?"

"It really requires two ships to work it right," replied Carroll, "and that's why I held it up as a last resort. Instead of grappling hooks, we'll tow a wire line across the bottom,—the *Lapwing* will tow one end and both the boats will try to tow the other end. I'll use a one inch wire hawser I've got below. We'll pay out about three hundred fathoms between us, and if the boats can drag their end, we'll sweep a path about a hundred fathoms wide each trip. The *Lapwing's* a mine-sweeper, you know,—that's what she was built for. If I only had her sister ship, my old *Falcon*, to drag the other end of that line, we'd be all set!"

Bob brightened up. Evidently his friend considered disappointments as all in the day's work. He finished

his dinner with considerably more appetite and waited hopefully for the next day.

The rattle of the anchor chain as the links pounded in through the hawsepipe waked Porter in the morning. With the anchor at short stay, the *Lapwing* moved slowly to the eastward till she reached the line of buoys marking out the swept field on that side, then came about and pointed for El Morro.

The two boats in tandem then shoved off from her port side, the surfboat leading with a heavy towline to the wider motorboat astern. And secured by a stout manila lashing to a samson post on the quarter of the motorboat was the end of the wire hawser.

The *Lapwing* stopped while the two boats moved away on her beam, the wire running out over the rail as the reel unwound. With fifty fathoms out, the boat paused a moment while Joe Hawkins lashed several old grate bars to the wire as a sinker; then continued to pull until two hundred and fifty fathoms were out, when a second set of bars were lashed on. The boats then headed up parallel to the ship, and the last fifty fathoms of wire were paid out over the *Lapwing's* quarter. The sweep hung in a huge bight, leading sharply down and aft at each end.

A sharp blast sounded on the *Lapwing's* whistle. The boats went ahead, their propellers churning violently; the wake from the surfboat was plainly marked as it surged around the bow of the boat abaft it. Slowly the two boats made headway with their wire.

When he was sure they were underway, Carroll started gradually on his own engine. The sweep changed its direction, taking a wide curve between its two ends, as it started westward.

With the boats paralleling her course, the *Lapwing* started on her ninth day's search. To Bob it seemed as if they were hardly moving,—it took thirty minutes to cover the half mile between the east and the west buoys. They swept a little beyond the western mark, then on a whistle signal, the ship and the boats turned away from each other, came about a hundred and eighty degrees and headed back eastward, straightening out about fifty yards to the southward of the first sweep.

Again the wire tautened out astern, assumed a curve between the towing vessels and they moved slowly ahead. Bob gazed admiringly at the seamanlike way the maneuver was performed, then looked to the eastward over the blank sea. A few yellow buoys, the endless swells, the far horizon. He looked aft at the wire over the starboard quarter. What a hopeless task!

The boats were abeam, the coxswains with their tillers straining to counteract the pull of the sweep dragging them toward the *Lapwing*. Slowly they all moved along, the *Lapwing* stopping her engine every few minutes to avoid gaining on her over-burdened boats.

"Look!" Hawkins from the fantail was pointing excitedly.

The two small boats, in spite of their engines, seemed to be going astern,—they were back on the *Lapwing's* quarter. And the sweep instead of running out in an easy curve astern now led sharply out to starboard in a straight line!

"Hard right!" cried Carroll. He seized a megaphone. "Surfboat there! Head for the *Lapwing's* bow!"

In a moment, the boats were alongside the *Lapwing*, their bow painters secured to her bitts; the *Lapwing* which had stopped, kicked ahead slowly on her engine. The sweep stretched out and led down astern, the ship did not move. They had caught something!

Hastily Clark in the surfboat cast free the motorboat astern of him, sheered away from the ship and steered out over the sweep wires. On a signal from Carroll he dropped the anchor of a marker buoy when he was over the spot where he estimated the sloping wire reached the bottom. This done, the *Lapwing* transferred the other end of the sweep to the motorboat, thus giving her both ends of the wire, carried an anchor out well forward for her and let it go, so as to hold the motorboat with the sweep taut astern of her.

The *Lapwing* headed for the spot where the last buoy floated, dropped anchor a little to the southward of it, then paid out cable till she drifted back past the buoy. Over went a kedge anchor on a hawser from

the stern; Carroll heaved in on the bower cable and paid out on the kedge till he was abreast the buoy which Martin picked up with a boat hook. The surfboat came alongside.

With the ship anchored, Lieutenant Carroll left the bridge, went aft. Nearly the whole crew was eagerly watching the buoy line. He beckoned to Hawkins.

"Get your rig on, Joe!"

Carroll scanned the little group of sailors.

"Carley."

Tom Carley left the rail, saluted.

"Carley, the surfboat'll take you to the motorboat out there. You relieve Williams as coxswain and hold on till you get further word."

A gruff "Aye, aye, sir!" and Carley dropped over the rail. In a few minutes, Williams was back on deck, and with Clark, who was taken out of the surfboat, was helping Martin to dress Joe Hawkins.

Quickly they hauled on his stiff suit, bolted on the breastplate, strapped on his belt, laced on his lead shoes. A brief test of the telephone and they slipped on his headset, dropped the helmet over his head. Williams gave it a sharp twist to lock the joint,—the safety catch dropped into place.

Hawkins rose awkwardly. Tom and Bill assisted him to the stage where he grasped a bail with each hand to steady himself.

"Up stage!" ordered Carroll.

On the superstructure, the winchman threw in his

clutch. The stage rose slowly off the deck till it cleared the rail, was pushed over the side.

"Down stage!"

The whip slacked off, the little steel platform dropped. A swell struck it, buried Joe's feet. Quickly he submerged, the upper part of his suit bulging out through his harness as the water rose round him. In a moment his helmet was below the surface, and a stream of bubbles floated up behind him.

The stage paused a minute. In the water, Joe adjusted his air, tried out his exhaust. Carroll slipped a telephone receiver over his own head and lifted the transmitter to his lips.

"Hello, Joe! All right?"

"O.K. Take me to the descending line."

Bob leaned over the rail. Tom Williams took a firm grip on the lifelines. Hawkins felt the strain, stepped off the stage and dangled in the water. Nothing below him now. Clark helped Williams as he dragged the diver forward to the buoy line. Joe saw it wavering in front of him, grasped it, wound his legs around the manila. He was ready.

"Lower away!" called the skipper.

Tom slacked out rapidly, Joe's helmet disappeared from sight. The stream of bubbles rose further and further away from the ship as Joe went deeper and the current effected them more and more.

Fifty feet, a hundred feet, a hundred and fifty feet of airhose vanished silently over the rail. Hawkins

was making a swift descent. A few seconds more and the lines stopped running out.

A pause. Carroll listened intently on the telephone. He heard the roar of air through Joe's helmet. It ceased a moment. Joe was turning off his air. Carroll pressed the receiver tightly to his ear. In a strangely flat, far away tone, came the message from the bottom:

"On the *Santa Cruz!*"

The strain vanished. Carroll's hat went sailing into the air.

"Got her!" he yelled.

To Bob, the sky seemed suddenly to brighten. The nine days' search was over, at last they had their ship!

Frank Martin leaned far out over the rail with a boathook, speared the captain's hat as it drifted by, gave it to him with a grin. Water dripped down Carroll's neck as he jammed the shapeless cap back on his head, but disregarding that, he listened intently on the diving telephone.

CHAPTER XIII

THE WRECK

At the bottom of the sea, Joe Hawkins peered out curiously through his faceplate. Against the dark gray background of the ocean floor, there rose a few feet in front of him a vague shape, fading out altogether a short distance away. The anchor of his descending line rested on the bottom at his feet. Dimly he could discern the outlines of a vessel, but the shape seemed unnatural. Not to lose his contact with the surface, he dragged the buoy line anchor with him as he moved slowly toward the ship, breathing heavily from his exertion. Twenty feet and he was touching something. He leaned over to examine it. A rudder. He unscrewed his diving knife from its sheath, cut loose the anchor, screwed back his knife, and secured the descending line to an iron band projecting from the rudder.

Hawkins walked back a few steps, a fine cloud of mud rising through the water under each foot as he moved, almost as if he were walking on a dusty road. He turned and looked again, trying to figure out what he saw. It had the shape of no ship he had ever heard of.

"Guess this pressure must be getting me. I can't

see straight," he muttered to himself. To clear his head, he felt for the exhaust valve on his helmet, slacked off the spring, then opened wide the control valve on his airhose. A gust of air swept through his helmet, his suit bulged a little more over his chest; large masses of air bubbles streamed from the back of his helmet, disappeared in the water overhead.

He took a few deep breaths, then looked again. Ah! Now he saw what was wrong.

The rudder was lying horizontally, the rudder post just clearing the bottom.

The *Santa Cruz* was lying on her beam ends, half buried in the ocean floor!

He walked slowly back till again he touched the ship, then looking upward first to make sure that there was nothing overhanging to foul his lifeline, he went cautiously round the stern. Vaguely he could make out the framework of the high poop, square ports cut through, tier over tier. The wood framing was white with the clusters of barnacles which in the centuries had grown there, layer on layer; the dark ports stood out sharply in contrast. Here and there a fleck of gold shone through, the gilding no doubt of the richly ornamented stern, where the growth had not adhered.

The diver came to the end of the poop. Already the rudder had faded from his view. He looked along the vertical deck which rose steeply from the bottom at his feet. It seemed to merge into the dark water a little beyond.

Hawkins looked up. His lifeline still led away at an angle, clear of the ship, but the long sweep of line was straining on him, tending to pull him over. He leaned forward, as if facing a heavy windstorm, and proceeded. The pull was too great, he made no headway.

Bracing both feet in the hard sand, he seized his lifeline with both hands, pulled it twice. In a moment he felt two answering jerks, then the line started to slack off and hung in an easier curve. Again he started ahead.

The deck rose up alongside him, a grayish white like the poop; some dark holes here and there marked where hatches had been cut through. He bumped something, stopped. The thick stump of a mast stuck out from the deck, blocking his path. He walked outboard, carefully scanning the mast to make sure no rigging shrouded it to foul him as he went. He saw none. Evidently the manila cordage had long since disintegrated and been swept away.

Hawkins came to the ragged end of the stump. Some large splinters stuck out sharply from it. He grasped one piece, bore down on it with all his force. It broke free, came clear in his hands. It felt strangely heavy for a piece of wood. Curious, he let go. It sank like a plummet. Evidently under that pressure, water had long since been forced into all its pores and it had lost all buoyancy.

Lifting his lines over the mast, he turned in once more towards the ship and started forward. A few feet

more and the deck ended. Looking towards what must have been the keel, he could see something which looked like a huge comb rising from the bottom.

He turned in where once had been the waist of the ship. Abaft was the poop; in front of him some heavy timbers rose like naked ribs from the sand, a few planks here and there still attached to them. The bare frames of the *Santa Cruz!*

Turning from the poop, he dimly saw a dark mass, low in the water, not connected by anything to the stern. Evidently the explosion had torn the vessel apart, blown out the ship's sides, and ripped off the deck amidships. The forecastle and the poop now lay, two separate pieces.

Moving clear of the shattered framework, Joe signalled for more slack and kept on. Gradually the mass ahead took shape above the ocean floor. When he drew near enough to get its wavering outlines through the water, he saw the forecastle of the *Santa Cruz* still erect, with the broken foremast rising over it, severed above the crosstrees. And there, caught round the foremast just under the lower yard, was their steel sweep wire, leading sharply upward and swaying gently as the boat which held it rocked on the surface!

A jerk came over his shoulder on his lifeline, nearly pulling him down. He turned, faced the lifeline, answered back with "One." Shutting off his air, he listened on his phone. Indistinctly he heard:

"Time's up! Stand by to rise!"

Hawkins opened his control valve, again the air whistled through. He gave three jerks on his line, the signal to take up the slack, and then started slowly back as the tenders above took in his lines. They drooped in a curve above him; as he came again abreast the poop he moved away to keep his line clear, then cut in astern of the ship. The descending line seemed to materialize from nothing as he approached it through the water. He clambered up on the rudder, close to the line, and shouted into his transmitter:

"At the descending line!"

"Joe at the descending line. Take him up!" called Carroll.

Williams jerked the lifeline four times. Below Hawkins answered with four, felt a strain come on his lines and was pulled off the rudder. Grasping the descending line, he rose slowly as the tenders on deck heaved him in, hand over hand.

Joe moved up past the poop, rose above the side of the *Santa Cruz* which lay uppermost. He discerned ragged holes dotting it; a hot fire from the *Golden Hind* had clearly swept the Spaniard before he sank.

The poop grew indistinct; when Hawkins rose a few feet farther, it seemed to dissolve in the water and faded from sight altogether.

The diver was hauled up a little further, then his ascent slowed. Over the phone he heard:

"Look out for the stage!"

Joe threw his head back, looked up through the port in the top of his helmet. Soon he saw overhead, alongside the descending line to which it was secured by a guide shackle, the little steel platform.

"Take me up a little more!" he called. He was hauled up again till he could touch the stage when he let go the descending line and swung himself aboard it thankfully.

"On the stage!" he yelled into his phone.

"Unshackle the descending line, Joe," he heard from the deck.

The weary diver leaned over, unscrewed the shackle pin and released the line. No longer held, it swung away from the stage and disappeared.

Dangling alone a hundred and twenty feet below the surface, Joe paused on the first step of his slow rise to decompress.

CHAPTER XIV

THE MOORINGS

THREE hours later, Joe Hawkins was swung in over the side. As the stage swayed over the rail, he glimpsed the entire crew massed on the fantail watching him. The platform landed on deck. Joe felt a bench shoved in behind his knees, and sat down. Tenders swarmed round him, cast loose his weights. Two men gripped his shoulders, two others seized his helmet and gave it a sudden violent twist. It flew round part way, unlocked the joint. Gently the helmet was lifted off his head. His breastplate was unbolted, the dripping diving suit pulled off.

Relieved of the crushing weight, he rose and stretched himself.

Clear of the crowd around him, waiting till he was undressed, he saw Porter and Carroll leaning against "the iron doctor," looking at him anxiously. He pushed aside the sailors around him and moved towards the skipper.

"Are you all right, Joe?" asked Carroll with evident concern.

Hawkins disregarded the question.

"We hooked her, captain, no mistake!" he exclaimed. "There's the poop down there, just like the pictures

you see of those old ships of Columbus. It had me guessing at first; I couldn't line it up with anything but I doped it out in a hurry. She's on her beam ends over to port and half buried."

In the cabin, with the other divers as well as his captain and Bob, Hawkins described carefully what he had seen, the position of both ends of the ship, the distance between them, and the condition of the stern.

Carroll listened silently as Joe described his dive, the kind of bottom he found, the state of preservation of the hull. When he had finished, the captain commented incisively:

"We're in for it, boys. According to that Spanish story, the treasure room was on the port side below the cabin. That half of the ship is buried." He pondered the situation, making a rough sketch of the poop.

"How does that look, Joe?"

Hawkins corrected it a trifle.

"She's deeper in the sand, captain." The skipper drew a line a little higher up, showing the rudder post just clear of the bottom.

"Come to think about it, I suppose the poop's lying port side down because the gold's on that side. When she broke in half, she must have rolled over and gone down heavy side first."

Carroll drew another sketch of the *Santa Cruz* as she must have been originally based on the description of the ship given by Don Jaime, and on some old Spanish prints of galleons of that period which at his re-

quest Major Houghton had had picked up in Spain. He went over his sketch while the others watched attentively.

"Now, she had a high poop, rising two decks above the hull. The strong room was a little abaft the break of the poop, on the orlop deck right here." He indicated with his pencil. "The only entrance was through a hatch overhead leading down by the captain's stateroom, where there was always a watch set. Don Jaime says the room was lined all over with heavy iron plates to keep any thieves in the crew from breaking in from below.

"As far as I can judge, with the poop half buried the way she lies now, the sand has probably filled her inside to the same level as outside, and that room is about fifteen feet below the bottom, so—" He drew in the mud line. "Now, Joe, you and the other boys figure out the best way of getting there. Meanwhile I'd better get out on deck and fix this wreck up for a salvage operation." He put his sketch in his pocket and rose.

On the fantail, he explained the next step to the boatswain's mate.

"We've had trouble enough finding this wreck and we don't want to have to drag for her again. Joe said he tied the descending line to the rudder; but that's only manila and it's likely to chafe through before long. Now we've got that wire sweep around the foremast and it's trapped under the yard and the crosstrees. It'll stay till hell freezes over.

"Bill, you take a screw shackle, and get over to the motorboat. There's an eye in one end of that wire. Shackle the eye around the other part of the wire, bend a small manila line to the shackle to pay it out with, then take the other part of the wire in the boat and steam away with it. The wire'll render round the mast as you go, and you'll finish up with a tight loop round the mast and only a single wire to the surface. Understand that?"

"Aye, aye, sir."

"Be sure you pay out easy on that shackle. If you let it get slack, the wire'll snarl up and she'll never render."

"I understand, captain."

"All right. When you've got the loop jammed tight round the mast, work back and coil all the extra wire down in the boat. When you're up and down over the wreck, give yourself about five fathoms slack, cut the wire, bend a new eye in it with some wire clamps and shackle on that round steel buoy you've got slung over the deckhouse. With that rig, we'll never lose her again."

Under the boatswain's mate's direction, the buoy and the other gear were soon in the surfboat and the boat on its way to join its mate a hundred yards off.

Clark leaped into the motorboat.

"Here, Carley, lend a hand with this."

Together they shackled the eye round the other leg of the hawser, making a running loop on the wire.

They bent a manila line to the shackle with some small stuff which would break easily, then started up the engine, heaved in their anchor and ran out slowly, keeping a good strain always on the small manila line to the shackle as they paid it out. Soon the boat came to a sudden stop, the wire ceased rendering. Evidently the shackle had reached the mast, the loop was fast around it. They pulled hard on the wire to make sure the loop was jammed, snapped loose the rendering out line, and then started to back down.

The sailors in the boat coiled down the wire as it came in over the stern. Carley directed them, helped them hold down the unwieldy turns as they coiled, lashing the wire every few turns with marline to keep it from snarling. The motorboat was nearly filled with the loose coils before they finally came up and down over the wreck. Seizing the wire to the samson post with some manila, Carley and Clark threw an eye into the bight a few fathoms from water's edge, secured the two parts of the wire together tightly with four wire clamps, and cut the hawser in half with a chisel. Clark passed the new eye to the surfboat where the crew shackled it to the spherical steel buoy and then tossed it overboard. Clark cut the wire loose from the motorboat. It floated away a few yards, half immersed, and bobbed easily to the waves. The boatswain's mate looked proudly at it. He had a steel buoy secured to the wreck with a wire hawser. No storms would chafe that away!

Carley wiped the grease which had smeared his hands from the wire, off on an old tarpaulin lying over a thwart.

"Well, mates, we got a ring in 'er nose now." He looked squarely at Clark. "How about it, boatswain? Goin' to let yer shipmates in on the game?"

Clark laughed. "It don't take no Sherlock Holmes to see we're out here divin'. I guess the boys'll figure it for themselves." He leaped across the gunwale into the surfboat alongside.

"Take 'er back to the ship, Carley," he commanded. In his own boat, he gave the engineer one bell, sheered away, and was soon back on deck with his men.

On the *Lapwing*, the crew were ranging long wire hawsers up and down both passageways, while Lieutenant Carroll supervised the task of shipping a two-ton anchor on the port quarter. He was balancing it over the rail, flukes outboard, shank lashed down inside the rail, ready to let go instantly. From the anchor shackle a short wire pendant led to one end of a wire mooring hawser; to the other end of the hawser a heavy spar buoy, cut from an old mast, was shackled.

"We won't do any more diving for a day anyway, Bob," said Carroll when the first mooring was ready. "I've got to get a decent set of moorings laid out before we start real work." He turned towards the crew:

"Boatswain's mate, heave in the kedge anchor!"

Clark sprang to the rail, threw a stopper round the hawser astern, took the strain on the stopper. A sea-

man cast the turns of the hawser off the bitts, dragged the line to the capstan and threw four turns around it. Clark let go his stopper, motioned to the man at the throttle:

"Heave round!"

The capstan started to revolve. The sailor on the hawser hauled it taut, the coils gripped the barrel and the hawser came slowly in over the bulwark, dragging the kedge anchor up with it till the anchor dangled under the counter and was swung in by hooking it with the boom.

The captain moved to the bridge, the deck watch to the forecastle. Soon the bower anchor also was up and the *Lapwing* under way again. The boatswain's mate and his crew laid aft once more.

Carroll swung his ship round to the westward, circled and steamed out on the bearing line from El Morro, heading directly for the new steel buoy. He slowed as he approached it, taking ranges as he came on. A hundred fathoms off, he stopped the engine, blew his whistle.

On the fantail, Clark swung an ax on the lashings holding the anchor on the rail and sprang clear. The anchor splashed overboard, the mooring wire flaked down in the passage shot after it, the long coils of wire whipped back and forth as the sailors stood clear of the quick death in store for anyone whom those twisting coils encircled.

The anchor hit bottom. The few remaining fathoms

of wire ran out more quietly. Clark hooked the spar buoy with the boom, swung it over the side and let go. It floated there, a black and yellow striped cylinder some twelve feet long and two feet in diameter, with a steel mooring eye in the end opposite to its own anchorage.

The *Lapwing* drifted slowly away from the buoy in the gathering twilight, while a second anchor was being rigged out over the quarter.

Nearly all the next day was spent in laying out three additional moorings,—one north, one south, and one east of the wreck buoy, and each about two hundred yards from it.

"All these anchors may look like a waste of time and money," said the captain to Bob Porter as he was working on his second mooring, "but I'd never let a diver work on a wreck without them. When one of our men is down below, his airhose is actually his thread of life. If anything breaks that, he's in for a terrible death. Now a ship that is just anchored, especially in deep water, will swing to her anchor depending on the wind, the sea, and the tide, and you can't hold her in one place. But if a diver's working from her, particularly if he's inside a wreck, the ship's got to stay in one place. If she swings away, she may break his lifeline; even if there's enough slack on deck to pay out as she goes, swinging round is pretty sure to get his lines fouled up in the wreckage below; he's got to have a constant lead to his lines to be sure they keep

clear. The only way to insure that on a ship is to moor her, and that's what we're doing here. Before we start real diving, we'll have four lines out, one to each of these moorings we're planting, and the old *Lapwing*'ll stay in one spot regardless of what happens unless the wind gets so strong we can't hang on. Whenever that happens the diver comes off the bottom and work stops."

In the late afternoon the last mooring went over the side, and a ring of gaudily painted spar buoys encircled the wreck, with the bright yellow steel ball floating in the center to mark the wreck itself.

The *Lapwing* anchored a little clear of the field, and after supper the divers gathered again in the little mess-room to work out the campaign with Carroll.

There was little discussion and no difference of opinion. The only path to the strong room lay in digging a tunnel through the bottom along the bulkhead at the forward end of the poop, tearing away the wooden bulkhead, burning through the iron sides of the strong-room, and dragging the gold out through the tunnel.

"Sounds simple enough," said Tom Williams, his huge frame spread out on the table over the sketches, "but I s'pose it'll be like all the other jobs—a lot of new nuts to crack that you bust your guts gettin' away with."

"You took the words right outa my mouth," agreed Martin. "Why can't these blasted wrecks sink re-

spectable like and right side up so's a sailor can work on 'em? Each one of 'em always seems worse'n the one before!"

The brief discussion ended and the divers filed out, leaving Bob Porter alone with the captain. A little hesitantly at first, Bob broached the subject of diving himself. As he feared, his plan met with little enthusiasm, but undiscouraged he pressed his point. Carroll, however, could not see it. In his own case, he explained, he had spent months diving in a tank only twenty feet deep under Clark's tutelage, before he had ever gone down in deep water. Not until the feel of the rig submerged and the operation of it had become second nature, had his instructors felt it wise to let him go down at sea. Even then, they considered diving such a dangerous business that it was only the urgency of getting first hand knowledge of his salvage operations that overbore all opposition and took him to the bottom to work on the submarines with the other divers.

"Perhaps you'll appreciate my position and yours better now, Bob. We've got four experienced men to do this job, and it's going to be dangerous enough for them. I can't let you get down on that wreck just for adventure. I'd like to go down myself, but I'm not diving on this cruise because I'm the only one on the topside who can direct the work or look after the ship. If I got in trouble down below, there'd be nobody left to carry on up here. As captain of this ship,

I can't risk the expedition going to smash by diving myself.

"Now if anything happened to you, I'd neither be able to explain to your uncle, nor forgive myself. Just to show you what it means, I can tell you this: no diver can get his life insured,—none of the companies will take the risk. When you get home you can check that up. Get an agent to show you his forms; they all have a little printed clause stating that the applicant does not intend to work under water. Think it over. They'll insure soldiers, sailors, aviators, but not divers."

Porter's face fell.

"If you say no, that settles it, but I had hoped to be a little more than a spectator. Well, I suppose I can tend the lifelines anyway."

"You can go a little farther than that, I guess," Carroll assured him. "If the boys have time, when we haven't got anybody on the bottom, you can get in a rig and go over the side on the stage and down a little way as often as you want. You won't get much pressure, but you'll at least get the hang of being under water. If we had the opportunity, after a while you might go all the way down for a look with one of the other boys to keep an eye out for you, but as it is, every minute on the bottom is going to count for a lot and I'm afraid we can't risk the delay.

"You know that from forty to sixty minutes is all the time one of 'em'll be down; at the most that's only

four hours a day if they go down singly or two hours if they dive in pairs. So our day's work on the bottom is going to be so short and each minute so expensive that we just can't go sightseeing."

Bob admitted regretfully the logic of the situation and accepted the verdict; at least he could do some shallow diving and that would be something to remember. He went below and crawled into his bunk, but then tossed restlessly for several hours trying to visualize the strongroom he would never see. Finally he dozed off.

CHAPTER XV

EXPLORATION

In a choppy sea, the *Lapwing* weighed anchor next morning and steamed slowly into the circle of buoys, headed for the windward spar. The surfboat came close aboard and the end of an eight inch hawser was dropped into it. The ship stopped, the boat stood clear, trailing the hawser over its stern as it made for the buoy. Bill Clark in the sternsheets maneuvered his boat alongside the buoy, where it pitched up and down as the waves swept by. At bow and stern, two seamen speared the buoy with their boathooks and hung tightly on, while the bowman, leaning down in the water, seized the pelican hook shackled into the eye of the hawser, threaded the bill of the pelican hook through the mooring band on the buoy, closed the hook, slipped down the locking link and shoved in the toggle pin to hold it locked. Soaked to the waist, he ducked back into the boat which immediately let go the buoy and headed back to the ship.

Again the boat took a hawser and ran it out to a spar off the quarter. And so between ship and buoys, the surfboat shuttled back and forth over the waves till finally the *Lapwing* lay like the hub of a huge wheel

with four lines radiating from her like the spokes to the buoys out on its rim.

Paying out one hawser, heaving in another, Carroll centered his ship over the wreck till the descending line made fast to the rudder of the wreck plumbed up and down alongside his lee rail. He was ready.

Tom Williams shuffled aft, already encased in a diving suit. Quickly the dressers, under Joe Hawkins' directions, attacked his weights, tested his gear, put on his helmet. In a few minutes he was over the side, sliding down the descending line while the light above faded to a deep blue. The water pressed in, he breathed a little more heavily as he slipped deeper. Finally the light below grew perceptibly dimmer. Tom knew he was near the bottom. He saw in front of him the poop of the *Santa Cruz,* dropped past it, and in a moment was standing on the rudder.

As he had been ordered, he unscrewed his knife, cut loose the descending line and screwed back the knife. Holding the line carefully, he started out along the bottom, breasting through the water around the stern of the wreck. He moved awkwardly, his heavily weighted feet lifting deliberately one after the other as he went, looking for all the world like a slow motion picture walk.

His lines tautened as he rounded the stern; he signalled for slack and went slowly on to the break of the poop. There he turned, and holding close to the

ship towering above, he walked in, keeping his right hand against the wooden hulk.

Williams paused. A large opening in the bulkhead marked the door to the upper deck. He peered through. It was completely black inside. Again he went along, passed another opening, evidently the entrance to the second poop deck. An iron hinge still clung to it, though the door was gone. He tried the hinge, it was securely fastened. He pulled down a little slack on the line he carried and with a couple of half hitches tied it firmly to the hinge. The next diver would be able to land closer to the actual job.

Once more he moved along. A few steps and he came to a sudden stop. Projecting from the bulkhead across his path was a line of broken timbers running from the mud underfoot up the wooden bulkhead. Tom peered out through his faceplate at them, looked out the top port in his helmet and followed the line of jagged planks upward till they vanished in the diffused light. He tried to think but his somewhat numbed brain worked slowly; the position of the ship on her side also confused him. At last he made it out; he was at the point where the main deck had been torn out of the ship by the explosion; he was looking at the remnants of the deck planking projecting from the poop.

Tom moved cautiously around the torn woodwork, still keeping close to the bulkhead. Eight feet further along he came to a similar jagged mass which had been

the berth deck. Beyond that had been the hold. He stopped and looked around. A little beyond he saw rising from the sand the gaunt timbers that had formed the frames of the *Santa Cruz;* on his right the forward bulkhead of the poop rose, dished in a little from the terrific blast which had torn away the decks.

Tom moved in till he touched the bulkhead, then adjusting his air a little, leaned over and scooped up a handful of the bottom. A dark grey mixture of sand, packed firmly down. That was what they would have to excavate. He dropped the sand; it settled slowly in a cloud through the water.

Tom shut off his air, shouted into his transmitter: "On deck!"

On the *Lapwing,* Carroll, who had been closely watching the trail of bubbles circling forward through the water as Tom worked, answered immediately.

"Hello, Tom!"

"Send down the hose!"

Several sailors lifted the end of a fire hose over the rail. Just abaft the brass nozzle screwed to the hose, the boatswain's mate lashed a short manila lanyard which carried a screw shackle on its other end. Clark slipped the shackle round the descending line, screwed in the pin, and shoved hose and nozzle over the rail, paying out rapidly on the hose as it sank.

Guided by the shackle sliding down the line, the nozzle vanished and length after length of hose went out after it.

On the bottom, Williams stood at the hinge to which he had secured the line. Looking up, he watched anxiously, his air exhausting upward in an ever-widening cone of bubbles into the water overhead. The descending line swayed gently, its easy curve rising and falling as the *Lapwing* heaved on the surface.

A glitter on the manila line. Another second and the shackle slipped into view with the hose dangling nearby only a few feet over his helmet. It came down in short jerks, soon was in his hands. He paused, figuring whether it was less effort to untie the lanyard or to cut it, then decided to cut it. Slowly he unscrewed his knife, slashed through the manila leaving the shackle dangling on the descending line, replaced his knife in the sheath. He moved away, dragging the hose with him to the spot near the keel.

Tom's time was nearly up. He lashed the hose lanyard to a broken timber and started back for the descending line.

At the descending line, he gazed through the hole in the bulkhead into the poop. For hundreds of years, no one had gone through that door. What lay beyond? Tom stooped over, crawled on his hands and knees through the dark opening.

Some hours later, Williams finally reached the surface. When he was undressed, he walked a little unsteadily up the passage. Carroll eyed his gait nervously,—something was the matter. Williams had

never been affected so before, even in deep water. Hurriedly Carroll ran after him, caught his arm.

"Are you all right, Tom?"

Tom steadied himself by holding to a hose rack.

"Fine, ol' man. Never felt better 'n m' life."

A strange odor hit Carroll's nostrils. Alcohol! He reflected quickly. In some way, Williams must have gotten to the medical whiskey and taken a few drinks before he went down.

"What a foolhardy thing!" thought Carroll. "Just like a sailor."

He beckoned to Martin.

"Put Tom in his bunk and see he doesn't break his neck getting down the ladder," he ordered. "Then tell Fitz I want to see him."

Fitz shuffled aft to the quarterdeck, saluted.

"Fitz, there are a few quarts of whiskey in the medical locker. Looks to me they're not safe below. Break 'em out, take 'em up to the cabin and lock 'em up under my berth."

Carroll turned attention to Clark, who except for his helmet was completely dressed and ready to go overboard.

"Bill, the firehose is lashed down right over the spot we want to dig. You start the tunnel. Got it?"

Clark tried to nod in the affirmative but struck his chin on the breastplate. Joe Hawkins slipped on his helmet, and the dressers assisted him to the stage.

Three minutes later, Bill Clark, thirty fathoms deep, was fumbling in the water casting loose the lanyard on the nozzle. He cleared it, faced the bulkhead, paced off ten feet from the broken berth deck towards the keel, then aimed the long hose nozzle at the bottom directly in front of him.

On deck, Bob Porter, standing by the firemain, watched the captain closely. The limp canvas hose stretched away to the bulwark and hung loosely in the water.

Carroll, telephone receiver clamped over his ear, listened intently.

"On deck! Turn on the water."

The skipper motioned to Bob, who rapidly opened the valve on the firemain. The hose rounded out, straightened the kinks suddenly, and in a stiff curve swept over the rail into the sea.

Below, Clark braced his feet firmly in the sand and waited. The hose suddenly bulged out as the water shot through it; the nozzle whipped violently backward and knocked the light diver flat, then writhed away across the ocean floor like a snake.

A little dazed from the blow, the diver picked himself up, and gritted his teeth, thoroughly mad. He opened his exhaust valve wider, cut down a little on his control valve, letting as much air as he dared out of his suit and making himself as heavy as possible.

Clark looked around. A few feet away a murky cloud was rising into the water. He walked toward it

and saw the nozzle whipping back and forth across the sand. Dropping to his knees, he crawled along and seized the wriggling lanyard.

Cautiously he drew the nozzle closer till he was able to place his lead-weighted foot on the hose just abaft the nozzle. He gripped the hose firmly with both hands, and rising slowly, dragged it back with him to the bulkhead.

Once more he spotted his position and turned the hose downward against the bottom. Immediately he was enveloped in darkness. Clouds of mud and fine sand spread through the water, blotting out everything from his sight. By feel alone, he played the jet back and forth between his feet. and felt them sinking in as the hose cut through.

He bent forward, bucking the strong kick of the water as it shot out, but soon he found himself in trouble. He breathed heavily from his exertions; he felt almost like a feather in the water trying to hold against the hose. His grip weakened.

In the darkness, Clark turned his head a little to the left and shouted into his transmitter:

"On deck! Turn off the water!"

On the *Lapwing*, Lieutenant Carroll thought he heard something, and listened more carefully. Only the roar of the air through the diver's helmet was audible.

"Hello, Clark! What do you want?"

Clark, barely able to stand up, repeated each word slowly:

"Turn—off—the—water!"

Only a mushed-up jumble of sounds, mingled with the noise of the air exhausting, came to Carroll's ear.

"Shut off your air and repeat!"

Bill Clark, leaning forward heavily, trying to counteract the thrust of the nozzle, dared not let go even with one hand long enough to shut off his control valve. Desperately he clung to the nozzle and shouted into the darkness:

"Shut off the water!"

On the surface, no one could make him out. The water continued to rush through the nozzle. Clark started to swear.

The hose tore away from his numbed fingers. He felt a sharp blow against his leg, found himself flat on his back in the mud. A trickle of water leaked through his exhaust valve, ran down his neck.

Clark rolled over, painfully got to his knees, gave himself more air to lighten up, and slowly rose to his feet. He took a step in the darkness, fumbling through the water with outstretched arms, bumped into the bulkhead. Turning, he walked in the opposite direction. The water lightened a bit, and a few steps further he was out of the cloud of mud he had thrown up and in the dim light of the ocean floor.

Some distance away, the hose was thrashing violently.

Clark shut off his air.

"On deck! Turn off the water! I'm coming up!"

This time he was understood. He watched the jerking of the nozzle slow, the hose go limp. Leaving it lie, the diver moved painfully to the descending line, gave the signal to rise.

When finally he reached the *Lapwing* and was undressed, he sprawled out on a coil of rope on the fantail. Pulling up his trouser leg, he found a large bruise, blue and yellow, covering his left shin.

"We're usin' too much pressure, captain. There's no holdin' it. Guess that's where the nozzle belted me when it tore loose."

A seaman went on the double to the medical locker for some liniment; Hawkins was soon massaging the leg, as well as Clark's back where he complained of some stiffness from the strain of bracing himself against the nozzle.

Martin went over next, retrieved the hose, and dragged it back once more to the bulkhead. He planted his feet at the edge of the little hole in the sand which Clark had dug, let out air till he began to feel the water pressing against his chest, then sang out:

"Turn on the water! Easy now!"

Once more Porter opened the valve to the firemain, but only turn by turn this time. Gradually the hose filled out as the water pulsed through till the pressure rose to forty pounds on the gauge over Bob's head.

A call from below:

"Hold it! That's enough."

Carroll felt the hose. He could make a dent in it with his thumb.

On the bottom, Martin played the jet downward, gradually working it in a small circle as the clay and sand of the bottom cut away. Like the diver before, he found himself immediately in an impenetrable cloud of mud the moment the water started; it was only by leaning occasionally against the bulkhead in front that he maintained his sense of direction.

Martin worked his hour, came up, was followed by Hawkins. It was late afternoon when the latter was hoisted through the surface and the day's work was done. Hawkins reported that the tunnel seemed about a foot deep and three or four feet across. Not much progress.

Next day the results were nearly the same. First Hawkins, then Martin, then Clark took their turns with the hose, burrowed into the clay, dug a little deeper. Less time was lost in the divers following each other; the first three men finished their work and the last one was up by noon.

Immediately after the crew had risen from the mess-table, diving started again. Tom Williams came aft to the dressing bench. Remembering the day before, Carroll watched him carefully as he came down the deck. He was perfectly sober. Satisfied, the skipper let the dressers proceed.

Tom went over the side and vanished. In a few min-

utes, he asked for the water, and once again the hose pulsated with each stroke as the pump in the fireroom forced the water through.

Half an hour went by. Williams ordered the water shut off, reported that he was coming up. The tender watched the lifelines carefully, but evidently Tom had had some difficulty in getting clear, for fifteen minutes went by before the tender felt the line jerk in his hands with the signal that Tom was ready to be hauled up.

Carroll grew a little nervous at the delay, fearing trouble, but he could hear the air going steadily into Tom's helmet and as Tom said nothing at all, felt it best to leave him alone.

In the middle of the afternoon, Williams was swung in on deck, clinging tightly to the bails as he dropped down. Several dressers swarmed over him, relieved him of his rig, and pulled off his diving suit.

He rose unsteadily, swayed as he attempted to walk forward.

In alarm, Carroll grabbed his arm to prevent him from falling, then let go in amazement and stood aside watching while Tom staggered up the deck.

Tom Williams was dead drunk!

His shipmates, as much startled as the captain, assisted the wobbling diver below and tossed him into his bunk where he was quickly snoring while they stood round, scratching their heads in perplexity mixed with envy.

Porter and Carroll leaned over the bulwark while the deck force cleared away Tom's rig and coiled up his lifelines.

"I knew we'd run into some new troubles, but I never guessed we'd have to contend with divers getting drunk on the bottom." Carroll swore softly. "That's the wildest thing I ever heard. It's bad enough having to look out for 'em when they're sober. I hate to think of what might have happened to Tom down there if he'd got fouled up in that condition when he couldn't help himself."

"But how could he do it?" asked Bob. "He couldn't possibly take a drink in a diving suit. Most likely he was drunk before he went down."

"No, Bob, he wasn't. I noticed him particularly when he went over and he was all right. Besides I've got all the whiskey on the ship locked in the safe. I can't make it out myself. Why, a man inside one of those rigs can't even scratch his own nose if it itches, let alone take a drink. I would have sworn in any court that it wasn't possible. But, it's happened all the same and it's going to be mighty serious. I can't let Tom go down again. He'd probably get killed. And if those other divers locate the wine he's found down there and he lets them into the secret of how he manages to drink it at the bottom of the sea, I guess there'll be mighty little progress on what we came out for."

Both puzzled over the problem. On the fantail, in the superstructure, on the forecastle, they saw little

knots of sailors in animated discussions. Evidently they also were trying to solve the mystery.

Bob burst out laughing. Carroll eyed him gravely.

"What ails you, Bob?" he asked. "Don't you savvy what this means?"

"I understand it, all right," replied Bob, pointing to the gesticulating groups of sailors, "but it just struck me that you'll probably have lots of volunteers for diving from that gang there as soon as they figure out how Tom did it."

Carroll grinned himself as the idea sank in.

"I guess you're right," he admitted. "There is some humor in it, but all the same, I've just got to find out how Tom did it and then break it up." He pondered the matter a while longer. "I give up. Harry Houdini himself couldn't have done that submerged."

From bridge to hold, the *Lapwing* buzzed with excitement while in his bunk the object of all the mystery slumbered peacefully on.

There was no diving next morning. Tom Williams, his eyes a little bloodshot, but otherwise sober, was brought up to the mast by the boatswain's mate. He looked at the captain, shamefaced but silent.

"Tom, I ought to clap you in the brig for getting drunk on duty, do you realize that?"

Tom did not answer, only hung his head.

"See here, Tom, I can't have any divers getting intoxicated. You've been diving long enough to know that it's dangerous enough even when your head's

clear. Now what happened? Where'd you get it?"

"I ran across some bottles in the wreck, captain," said Tom at last. "And I sez to myself, 'Here's some o' the real old stuff at last!' So I tried it out."

"Yes, I can imagine that all right, but what I want to know is: How did you manage to drink it?"

Williams looked at the boatswain's mate, looked at the skipper, twisted his cap nervously in his fingers.

"I'd rather not say, captain. Some o' the other boys might get led into bad habits."

Carroll looked at him sternly.

"Come across, Tom. We've got to end this. You're not going down again until I know what's happened and I'll make sure none of the other boys imitate you. Now, out with it. How did you do it?"

Tom shifted uneasily from one foot to the other.

"I s'pose I might as well give it away. I couldn't do it again anyhow. There was only three bottles o' wine there altogether, an' I've drunk 'em all, one the first time an' the two others yesterday. Y' see, captain, it was this way," and he leaned against the mast as he proceeded.

At the end of his first dive, he had crawled through the door leading into the poop and moved on his hands and knees down the passage beyond. A few feet inside, he felt a door over him, and rising had stood up in the door his feet still in the passageway beneath. It was completely dark. He felt round, found he could touch the ceiling overhead (it was originally the

side of the room) and he had but to reach out only a foot or two to feel the bulkheads on every side. Evidently the room was only a small locker or pantry, possibly belonging to a large cabin further aft. His fingers came in contact with some shelves; he groped over them, touched several bottles. He could see nothing at all, but judging from the shape of the bottles and the feel of the wire bound corks, he figured they contained wine.

At that, he paused and wondered how he might smuggle them aboard the *Lapwing* without detection. He thought of various stratagems to accomplish it, but all left him open to getting caught and having the wine confiscated.

While he puzzled over that problem, he became half-conscious of an extra weight pressing on his shoulders. At first he ignored it, but soon his shoulders ached from an unusual load which seemed to be growing heavier. He felt that he had been down too long, decided to leave the bottles there and get them later when he could come prepared to smuggle them up. He stooped down to clear the door below. Immediately his helmet rose off his shoulders, the burdensome weight vanished. Williams stopped amazed; straightened up. His helmet settled down heavily again.

Tom Williams had been diving many years but nothing like that had happened to him before. His helmet had lost its buoyancy. A thought struck him. He reached up into the room over his head.

He was right. There was no water there, only air! The exhaust air from his helmet had floated up as usual, but as he was in a small room, with no opening in it except the door at the bottom in which he stood, the air had been unable to escape and as it gradually filled the top of the room, had forced the water lower and lower out the door below, till his helmet no longer in water and consequently without its normal buoyancy, sagged down on his shoulders.

Williams at first was a little frightened at the situation, but calmed quickly at the recollection that he need only duck through the door and he would be in his element again.

Then an idea struck him, almost overpowering in its novelty. He felt for the bottles on the shelf. They were still there. He felt up and down for the waterline. It was even with his neck.

He reached up to the faceplate on his helmet, unscrewed the wingnut which held it shut, and swung it open on its hinges. His air started to blow out the faceplate instead of through the exhaust valve.

Tom seized a bottle from the rack, smashed the neck against the planks overhead, then shoved the bottle through the open faceplate and guzzled the contents.

"It was wonderful wine, captain," he concluded, "more'n three hundred years old. But there ain't none left now," he added mournfully.

"Thank heaven for that!" exclaimed Bob.

Carroll gazed at Tom in unconcealed admiration.

"That's a swell yarn, Tom. Now go below. I'm not going to punish you, but for the love of Mike, try to exercise your ingenuity next time on what we came out here for."

CHAPTER XVI

TUNNELING

Day after day the divers struggled, driving the tunnel deeper. It was slow work. With the low pressure they were forced to use, the cutting power of the jet was low and it failed to make much of an impression on the hard clay which underlay the surface cover of sand and shell. As the hole went deeper, a new trouble arose. The heavy clay, instead of floating up and out, settled down again in the water and after cutting ahead a few inches, the diver had to reverse his hose in order to wash his cuttings up and out of the hole. The divers floundered in the muck, worked their way downward. With only four men, not much could be done each day.

They had been working a week when a storm drove the *Lapwing* away and three days went by before it blew over.

They came back to find the hose, which had been buoyed off at the surface, badly fouled up with the foremast and the wire leading upward from the mast to the wreck buoy on the surface.

A heavy swell was still running when the *Lapwing* moored and the surfboat danced violently as it rose to the crests while it dragged the hawsers one by one to the mooring buoys and secured them. Even the

Lapwing herself, taking the seas on her starboard bow, rolled steadily as the waves swept by. On the lee quarter, the water was a little smoother and Carroll decided to proceed with the work.

The first need was to clear the hose. Tom Williams was dressed and went over the side, intending to slip down the wire hawser to the foremast of the *Santa Cruz*. He carried a pair of spanner wrenches to uncouple a hose joint near the mast so the deck force could pull up the upper part of the hose while he cleared the lower end.

He had a little difficulty going down. As he submerged, still near the surface, with first a crest, then a trough of the waves sweeping over his head, the variations in pressure as the depth of water over him rapidly alternated, nearly burst his ear drums. He dropped swiftly down the hawser to escape and not till he reached a hundred feet did he check his descent by gripping the wire a little more tightly between his legs.

He went more slowly then till finally he made out below him the broken foremast of the *Santa Cruz* with some three or four turns of the hose wrapped tightly around the crosstrees. Tom stopped, and bending over so he could see downward through his helmet, examined the tangled hose carefully. Part of the hose stretched away at an angle downward, leading to the poop, the rest floated upward to where some work buoys held it at the surface. About twenty feet above the fouled

turns, he saw a brass coupling in the floating firehose.

He lightened himself, climbed up the mooring wire and tried to reach the coupling, but it was beyond his grasp. The hawser he was on swayed continuously as the ship above, which held its upper end, rolled to the seas. Tom held on tightly with one hand, reached out with the other and waited, hoping that a wider surge on the hawser would swing him within reach of the hose.

The wire started to swing over. Tom stretched far out, clawing through the water. His fingers touched the hose, he strained a little further to grasp it. A sudden snap on the wire, and the hawser tore from his other hand.

Tom started to fall through the water, then stopped with a jerk as he brought up on his lifeline. He swung his arms round wildly, feeling for the hawser or the hose, but neither met his touch. He looked up. His lifeline was twisted round the wire fifteen feet over his head. He reached up, tried to grasp his own lifeline and climb up it back to the hawser. He had pulled up a foot or two when the hawser surged violently, gave him a sharp jerk, and shot him to the end of his line.

He clutched again for the lifeline, made another attempt. It was useless. He dangled from the bight of the surging hawser, shooting suddenly from it every few seconds as it tautened out, sending him sprawling like the end boy in the old game of snap the whip.

Tom felt himself going fast

Tom felt himself going fast. Under the high pressure his senses began to cloud; as he suddenly brought up on his lifeline after each jerk, his heavy lead shoes gave his legs a terrible wrench. He shouted feebly for help.

On deck, Carroll listening on the telephone caught the sound.

"Hello, Tom!" he called.

No answer.

Carroll turned to the tender.

"Give Tom 'One' on his lifeline."

The tender jerked the line, waited a moment. No answering signal came back. The tender signalled again. No result.

"Line feels fouled to me, captain," sang out the tender. "There's no give to it!"

Martin was on the quarterdeck, partly dressed, waiting to start on the tunnel when Tom had cleared the hose. Hurriedly the dressers secured his weights, tested his telephone.

Briefly Carroll instructed him. "Tom's in trouble. Must be fouled. Doesn't answer signals and won't reply on the telephone. I think I got one call from him, but I'm not sure. Got your knife? Take a stillson wrench with you. If Tom's foul on the wire, let go that shackle round the mast and we'll haul him up, wire and all." Martin's helmet was clapped on, he was assisted to the platform.

"Up stage!"

Martin went up, over, and down till the water enveloped him. He was dragged to the wire, seized it. The *Lapwing* rolled heavily.

"Lower away!" he called. The tenders slacked out.

On the *Lapwing's* rail, Martin's lines slipped out rapidly to the one hundred and fifty foot mark, then stopped.

Tom's tender "fished" his airlines carefully, signalling occasionally but never getting a reply. Carroll called every few minutes:

"Hello, Tom!" but the whistling of the air as it rushed through Tom's helmet was all he ever heard. On deck there was nothing to do but wait.

Martin reached the point on the hawser where Tom was fouled. He found Tom's lifeline and airhose badly tangled round the wire; below he could see Tom snapping violently each time the wire jerked. He slid down a little further, tried to get some slack on Tom's lines to clear the turns but they were jammed too tight, he could not free them. He tried to haul Tom over to the wire but his dead weight was too much; Tom streamed off at too great an angle to allow Martin to haul him to the hawser and swing him around it to free the foul turns.

Tom's arms and legs dangled loosely as he swayed, and they flew out crazily as he tossed on the end of his lines. Martin watched him a second as he swung through the water, realized he would get no aid from Tom.

"Unconscious already," he muttered to himself. "I'll have to hurry!"

He slid down the wire to the crosstrees, crawled cautiously around them, and climbed down the mast a few feet till he came to the spot where the running loop on the wire encircled the mast. Clinging with one arm to the mast, he pulled up the wrench hanging from his belt, tightened the jaws round the end of the shackle pin, tried to unscrew it and release the wire. The pin would not turn. He heaved harder. Still no result. Desperately he pulled on the wrench but he could not start the pin. He let go, shoved his helmet close to the shackle and peered through his faceplate at the pin. He swore bitterly. Under the strain on the wire, the shackle had sprung, the pin was badly bent. It would never unscrew.

In despair, he cast loose his diving knife, started to hack violently at the wire. It was futile,—he made no impression on the plow steel strands.

He stopped, turned off his air.

"On deck!"

"Hello, Frank!"

Fortunately the telephone connections were good. In the flat, far away tones of a man under pressure, Carroll heard:

"Tom's foul of the wire. I can't clear him. The shackle's jammed and it won't come apart." Frank paused a moment, turned on his air to get another breath, then resumed. "Send down an axe. I'll try

an' cut away the crosstrees and slip the wire over the top of the mast." He turned on his air again.

Carroll thought rapidly. Martin must be in a frenzy. No man could expect to cut away those heavy crosstrees in time to do Tom any good. They would have to cut the wire somehow.

The entire deck force was lining the rail, watching anxiously the streams of air bubbles bursting through the surface, helplessly standing by while Martin struggled below.

Carroll turned suddenly to them.

"Bill, get the torch on the double. Joe, couple up the torch hoses to those gas bottles. Sparks, you get out the igniter and plug 'er in."

The men rushed off, hastily returned.

In a trice, the torch was coupled up; Carroll tested each gas quickly, tried the flash on the igniter, then slipped a shackle round Martin's airhose, seized the torch to the shackle with a marline lanyard. Joe Hawkins lowered it away rapidly.

Carroll lifted Martin's telephone.

"Hello, Frank!" He listened a moment. Martin turned off his air, acknowledged the call.

"I'm sending down the torch on your airhose. Burn that wire in half just below where Tom is foul!"

Martin dragged himself onto the crosstrees. The heavy wire hawser surged at his feet as it rose and fell with the surface waves. Prudently Frank kept clear of it, and waited seemingly an endless time.

Vaguely he could make out Tom's figure snapping through the water over his head.

A metallic ring on his helmet,—the shackle at last.

He clawed forward, caught the torch dangling from his lifeline, cut it loose. Quickly he turned on the air, the oxygen, the hydrogen, adjusted each valve a little. A stream of gas bubbled from the tip of the torch. Frank held the torch in one hand, gripped the igniter with the other. He turned his head toward his telephone transmitter, shouted:

"Turn on the igniter!"

On deck, Carroll listening intently, repeated the call. The electrician threw in the switch; Carroll sang out:

"Hello, Frank! The igniter is on!"

Balancing precariously in his lead-soled shoes on the crosstrees of the *Santa Cruz,* Martin swung the igniter through the turbid water into the stream of gas issuing from the torch, pressed the igniter contacts together, let them go. A spark flashed across the gap.

Immediately there was a sharp explosion in the water, a ball of orange-colored flame leaped from the torch as the gases ignited, and burned with a muffled roar. Frank dropped the igniter, lifted the torch in front of his faceplate, readjusted the valves till the flame shortened enough to suit him.

He gripped the wire hawser with one hand, clung carefully to the flaming torch with the other.

"On deck! Take me up about twenty feet!"

Wrapping his legs round the wire, he was hauled

by his lifeline off the mast and moved slowly up the hawser, as hand over hand, his tenders above heaved in.

Tom's limp figure came more clearly in sight. Another heave and the fouled turns of Tom's airhose rubbed across Frank's suit.

"On deck! Vast heaving!" shouted Frank. He stopped, swept up and down as the hawser swayed.

Clinging tightly to the hawser with his left hand, he swung the roaring torch through the sea, brought the flame against the wire just below his feet, held it there a moment.

The steel strands glowed, became red hot. Frank pressed his trigger.

A jet of oxygen shot through the center of the flame, hit the glowing steel. Instantly the flame changed from orange to a pure white, and a long stream of brilliant sparks flew through the water as the steel caught fire. Slowly Frank moved the flaming jet across the hawser,—the strands sparkled an instant, parted.

The hawser snapped in two; Martin swung wildly through the sea as the upper part, no longer restrained, swung away from the mast. Instinctively he thrust the torch out straight to avoid burning himself, then turned off the gases. The flame vanished, the noise ceased.

"On deck! Take up the torch!" He let it go, it disappeared overhead.

He felt him ascending. The *Lapwing* was heaving in the hawser. At eighty feet they stopped, lowered down the stage. Martin clambered aboard, seized the lifeline leading from the severed wire down to Tom, pulled him up, dragged him on the stage, limp, motionless. Frank pressed his hand over Tom's heart. A faint pulsation. Tom was still alive!

Martin dragged his shipmate to a sitting position on the stage, braced him against a bail, and while they slowly rose to the surface, massaged as best he could through the stiff diving suit to help the circulation of the unconscious diver.

Carroll made the pauses at the various stages as brief as he dared; twenty minutes later the stage swung in on deck; the helmets were twisted off the divers. Without waiting to undress further, Frank and Tom were carried through the door of the "iron doctor." Carroll, inside with them, hastily ran the pressure up to forty pounds to minimize the chances for bubbles.

Aided by two tenders, the captain hurriedly pulled the lead weights and the suit off Tom's silent body, stretched him on blankets in the inner lock.

More than an hour, he worked over Tom with stimulants, hot towels, ammonia, before Tom's breathing became stronger and a faint glow came back to his white cheeks. Finally he rolled his head, opened his eyes slowly, looked up as if just awakening.

"Hello, Mr. Carroll," he said, smiling, then closed

his eyes and went sound asleep, his bare chest heaving regularly. Martin, undressed now, gently pulled a blanket over Tom. Carroll, covered with perspiration, sank back against the steel side of the tank and gave a sigh of relief.

"Thank God, he's all right now!" He clapped Martin on the shoulder. "I'm proud of you, Frank. You'd have found some way of getting Tom clear even if we hadn't had the torch!"

In the late afternoon, Joe Hawkins dived, sliding down the fouled firehose to the foremast of the wreck. He took with him the end of a four inch manila hawser which he secured to the mast to act as a buoy line in place of the severed wire. That done, he sat down on the crosstrees, and profiting by Tom's mishap, had the firehose lowered from the surface while he hauled in the slack, till the coupling came down to him. With the spanner wrenches, he unscrewed the joint; the upper end of the hose he seized to the new hawser with a few turns of marline while he slowly and cautiously stretched himself out on the crosstrees and turn by turn unwound the lower half of the hose. At last it was free; he sat up once more, coupled up the joint again.

"On deck!" he called, "all clear! Take up the slack!" The hose to the surface stretched taut. He unscrewed his knife, cut loose the marline lashing; the hose fell away from the mast and faded from sight in the water. Joe signalled to be hauled up.

A calmer sea greeted them next day. Bill Clark was dressed first, while Tom, his legs still sore from the jolting his lead shoes had given them, reclined on a coil of manila in the stern and watched lazily.

Clark went over, slid rapidly down, groped his way along to the tunnel, found the hose and washed steadily ahead. Joe and Frank followed him. Each spent an hour in the hole,—by noon the last of the three had started up and the day's work was done.

Day by day the digging proceeded. After a few days' rest, Tom dived again and took his turn with the other three. But the work went slowly; they were down twelve feet with two more still to go to come opposite the treasure room.

Bill Clark was in the tunnel, fumbling in the darkness to keep the jet of water from the hose aimed properly down. A swirl of mud and water swept up by his helmet; he could feel the uneven sides of the tunnel as his canvas suit, plastered with blue clay, bumped the narrow hole with every move he made. Occasionally, to make sure of his bearings, he swept his helmet around till it struck the wooden bulkhead of the *Santa Cruz;* he tried to keep facing that, but in the total blackness he could keep his sense of direction only a few seconds. Tightly he gripped the hose, played it back and forth around his feet, felt them sink deeper in as the jet washed away the clay underneath.

A heavy blow struck him. The hose tore from his grasp, he felt his helmet jammed into the mud at the

bottom of the tunnel. Instinctively he tried to rise. A crushing weight lay on his body. He could not move. A little stream of water started to trickle into his helmet through his exhaust valve, gathered in a pool under his left cheek.

Clark felt the water, tried to twist his helmet to get the exhaust valve on top and stop the leak. He failed.

The sides of the tunnel had collapsed, he was buried under ten feet of clay and mud at the bottom of the sea!

Clark ceased struggling a moment, tried to think. Under the heavy air pressure, his brain felt muddled, his thoughts came slowly.

The hose! With that he could wash his way out! He reached for it, found he could not move his arms, could hardly close his fingers. The hose was gone.

With an effort he forced himself to think again. No hope from the hose. They'd have to dig him out from the top side. He wondered vaguely how long it might take. Breathing was difficult. He couldn't last long there. How long had they been working on that tunnel? Two weeks? He tried to remember. No, it must have been longer. He supposed he could stand the pressure another hour. They'd do their best from the top side!

His shoulders were pinned tightly, but he twisted his head inside the blackness of his helmet till his mouth was opposite the telephone transmitter.

"On deck!" He listened intently. No answer. He

called again. Still no reply. He repeated the call louder. His breath came in short gasps.

He became a little panic-stricken. Why didn't the top side answer?

"On deck!" he screamed, then lay panting, straining his ears against the telephone receivers. Silence.

He tried to push his mouth closer to the transmitter, came in contact with the puddle of water that had leaked in. Despairingly he grasped the truth. His transmitter was soaked in water, short-circuited, useless! His telephone was dead. He could never notify his shipmates!

For the first time, cold fear, like a sword, seemed to pierce his heart. He was to die alone in the blackness and the mud, jammed against the hulk of the *Santa Cruz*. There went fleeting through his mind a vision of her crew;—their corpses must be lying on the other side of that bulkhead; he saw himself for all eternity buried there with them. The thought startled him into sudden activity,—he struggled violently inside his suit to rise, but only for a moment. His strength was going, he found movement impossible,—his arms, his legs, his body, firmly held in the surrounding clay and mud.

Breathing with difficulty, the exhausted diver ceased struggling. With a conscious effort, he collected his dazed wits, forced himself to think.

"Keep yer head," he kept mumbling as if he were counseling another person, "keep yer head! Don't

use up yer strength by gettin' in a panic. You bin divin' a long time, Bill. Think!"

He lay still, tried to breathe more slowly. He felt a bit calmer. Resolutely he forced from his mind the thought of death. But escape was wholly up to himself. Painfully he racked his fuddled brains. The hose occurred to him again. He remembered a shipmate who had washed his way out of a cavein once. Smith. Fine diver too. No use to him. The hose was gone.

If only he could let them know on the *Lapwing*. If his lifeline didn't break or his helmet tear free of his suit and leave him buried in the mud, they could put the lifeline on the capstan and heave him up through the clay. But he couldn't signal and he couldn't telephone. Damn that water! He wondered if any more had leaked in. He twisted his head a bit to find out. It had. His helmet was already a third full. He threw his head back with a jerk, almost laughed as the situation hit him. Would the pressure get him or would he drown first? He lay quietly in the blackness and weighed the question.

He tried to think again. No hope from the wash-hose; no hope of being pulled out. What else was there? His thickening mind puzzled over it; his twitching fingers involuntarily tried to work themselves free through the clay.

He became vaguely aware of touching something with his left hand; unconsciously the fingers clawed a

small space clear and grasped a familiar object,—the control valve on his airhose.

Like a flash an idea shot through his mind, so dazzling in the hope presented that for an instant it seemed to the prostrate diver as if a brilliant light had flared in the darkness of his helmet. He was saved! He could blow himself out!

Tightly he gripped the control valve, half afraid that if he let go his fingers might not be able to work their way to it again. Gradually he swung it wider open. He felt a stronger current of air sweeping into his helmet, expanding his suit. Breathing became easier, part of the load was lifted off his chest, he was able to move his shoulders a trifle.

He opened the valve further. His diving suit swelled out, became more and more buoyant. His helmet started to rise, and he found himself slowly pulled into an erect position. The water ran down his neck, from his helmet to his feet. He shut off the air a moment while he made sure. Yes, he was up. The mud started to press in on him again; he took more air, ballooned out his suit, and started slowly to float upward through the cavein, his bulging suit straining against the harness which held his helmet down on his shoulders and floating him up through the clinging mud. Inch by inch he ascended; suddenly his helmet burst from the darkness into the dim light of the ocean floor.

Hastily Clark shut off his air, stopped rising. Only his helmet protruded, he was still buried in mud up

to his neck. He paused a moment, in an ecstasy while he drank in the glory of the light after what had felt like an eternity of blackness; then he pulled himself together, muttered:

"Now comes the real trouble!"

He fingered the air valve again. His distended suit made him excessively buoyant; if suddenly he were to tear free of the mud, he would go shooting to the surface without decompression before he could stop himself, and with all the air his blood had soaked up, "the bends" would finish him.

Cautiously he opened the valve again, floated up six inches more, then another foot. His shoulders and arms were free, his suit bulged a little further in the water, he started to rise more rapidly. Quickly he closed his control valve, hit the inside of his exhaust valve with his chin to open it wider and allow more air to escape. His suit shrank a little, the rising stopped, he sank back a bit. Adjusting his air to keep from sinking, he leaned over and tried to crawl out of the pit but it was like a quicksand,—when he moved he sank deeper.

He took a little more air, held himself steady, buried to his waist, and thought again. He dared not risk floating completely out of the mud, he knew he could never stop himself in time. His lifeline, drifting across his faceplate, gave him another idea. If he couldn't telephone, his arms were free now and he could signal. He seized the line, gave it three jerks.

A few seconds passed, the line was jerked three times from the surface in answer, then became taut. Clark shut off his air, made himself heavy as the strain came on, then felt his legs being dragged free of the mud. In another second, he was clear and dangling in the water a few feet off the bottom.

He signalled for slack, was lowered again, sat down on the ocean bed to rest. Over him, the poop of the *Santa Cruz* loomed up, silent, immovable. His pounding heart and labored breathing quieted perceptibly as he gazed at the motionless hulk under which he had been buried.

"I beat you that time," he muttered to himself. He rose painfully, retrieved the hose which was whipping around violently a few yards away, and dragged it back. Lashing the hose to his belt so he could not lose it again, he moved to the edge of the hole, dropped into it, started washing out the soft mud and broken clay with which it was filled.

He had managed to clear out nearly two feet of it when finally the signal came to stand by to come up.

CHAPTER XVII

BREAKING THROUGH

THREE more days of burrowing in the muck and the clay and the shaft was at last deep enough. From the description given by Don Jaime, the hole was opposite a passage in the hold which led aft past the strong room. The next task was to break through the heavy wooden bulkhead.

Fortunately, the massive timbers comprising the framing of the wall were on its after side, while the thick planks which formed the bulkhead itself were on the side toward the tunnel. The planking had originally been put on in horizontal strakes; with the ship lying on her side, the planks now were vertical, rising parallel to the tunnel. On what had once been the centerline of the ship, they ended in a rabbet cut into the frame which here projected through the bulkhead.

These joints, which came about two feet above the ocean bed, were very carefully examined by Tom Williams, on one of his dives, and their appearance minutely described later to Lieutenant Carroll.

When the tunnel was finished, Carroll fitted out his men for the next step. Tom Williams and Joe Hawkins went overboard, one after the other, each carrying a canvas bag full of tools.

On the bottom, Tom walked slowly to the edge of the shaft, dropped his tool bag, fished inside it for a tapered steel wedge and a sledge hammer. Joe joined him as soon as he slid down the descending line.

Williams gave him the wedge, pointed to a plank rising from the near side of the tunnel. Silently Joe adjusted his air valves so he could lie down, stretched himself out flat on the bottom, and reaching a little above his helmet, shoved the sharp edge of the wedge into the oakum-filled joint between two planks.

Straddling Joe's body carefully, Tom lifted his short-handled sledge hammer over his shoulder, swung it down lightly once to measure the distance, then drew back and drove the sledge home with all his might. A sharp ring echoed through the water, the wedge sank nearly an inch into the joint. Joe let go and crawled clear; Tom in three more blows had entered the wedge at least four inches and driven the point clear through the planking. A few side raps and the wedge dropped out.

From his bag, Joe took a stout crowbar and rammed it into the hole left by the wedge. He slipped a short length of pipe over the handle to increase the leverage; then both divers braced their utmost against the bar.

The plank gave a little, a few barnacles broke off; they threw their weight against the crowbar, the end of the plank suddenly jumped clear of the rabbet and, fringed with oakum, stuck out an inch or two from the bulkhead.

Tom withdrew the bar. From his bag, he took a half inch wire strap, wound it three or four times about the projecting end of the plank, hammered the turns down tightly, then slipped one of the eyes through the other. Meanwhile, at the descending line, where a shackle had guided it down, Joe had received a wire hawser slid down from the *Lapwing*. He let go the guide shackle, dragged the end of the hawser over to Tom, and helped him shackle it into the eye in the wire strap. Tom gave the coils of the strap a final blow with his hammer to make sure they were gripping, then both divers stood clear.

"On deck!" called Tom, "take up the slack!"

The hawser tautened and pulled on the strap.

"All right. Haul away!" cried Tom.

On deck, the boatswain's mate threw several more turns of the hawser round the capstan, jerked the throttle open. The capstan groaned under the load, then started slowly to drag the hawser in over the rail.

Below, the divers saw the wire strap bite into the thick plank as the strain came on and the hawser stretched away to the surface. The joints between the plank and the bulkhead opened a little wider, the oakum seemed to be squeezing out, then suddenly the plank ripped loose and leaped out of the tunnel, dangling its twenty foot length from the hawser.

"Take her up! She's all yours!" yelled Joe. The plank disappeared.

Immediately Tom broke out a pair of devil's claw

tongs from his tool bag, reached into the opening left by the missing plank, and gripped the next plank, sinking the claws into the wood as deeply as he could by closing the tong handles. The hawser came down the descending line once more; again Joe cast it loose, dragged it over, and helped Tom secure it to the tongs.

Once more the *Lapwing* heaved. The claws dug into the plank, seized it tightly, and in a moment tore it away. Twice was the operation repeated till altogether four planks running down the side of the tunnel had been removed, leaving a gap in the bulkhead four feet wide.

A little over an hour had gone by. Tom and Joe lashed their tools to the hawser and started up.

On the stage at eighty feet, exercising vigorously to assist their decompression, they saw Frank Martin slide by them on his way down, a stream of bubbles shooting from his helmet, leaving an ever-widening trail as he vanished in the depths below.

Martin landed. He paused a moment, looked up to make sure the lampcord he carried was clear of the descending line, then eased along the poop till he came to the tunnel. He tied one end of a coil of small manila line he carried to a timber projecting overhead, and tossed the coil down the hole.

He slid down the line, stirring up a fine mud in the tunnel. Immediately the brilliant light of the 1000 watt lamp he carried faded out, shrouding him in darkness.

Martin felt his feet strike the bottom of the shaft, and sink in a little. He swung his lamp in front of his helmet, held it close. Within a range of six inches, he could barely see. He felt round the tunnel, and located the side towards the ship. The missing planks left an opening there. Pushing close and kneeling down he thrust the lamp in front of him, squeezed through between two of the now horizontal frames, and found himself lying on his stomach in the hold of the *Santa Cruz*. He crawled in a few feet farther. The mud of the tunnel was left behind, the water was clearer, he could see a foot or two.

Curious, he swung his light around. Overhead, about three feet up, was another wooden bulkhead, which had once formed the starboard side of the passage. The diver scanned it closely. The planks were bulging down between the thick stanchions which had braced the bulkhead; apparently the weight of the cargo above pressing down was distorting them dangerously. A little gingerly, Martin examined the planks over him; if they let go, the diver beneath would be crushed flat.

"Lucky we're not using any dynamite; it'd knock the whole ship down right on top of where we want to work," he thought.

He crawled along some twenty feet, trying the planks beneath him occasionally by kicking them with his lead shoes. A dull wood sound came to him through the water.

A few feet further and the sound changed in tone. The bulkhead seemed more solid. He rapped it with the copper toe caps on his clumsy shoes; a metallic ring came back beneath the wood. Instinctively Martin felt that the iron side of the strongroom was beneath him.

Swinging his light to and fro, he crawled over the bulkhead, seeking some sign of an opening through it. He found none. He turned and slid through the water towards the keel. Perhaps there might be an entrance near the bottom of the hold.

His helmet rang against something. He stopped, hauled up the light which was dragging astern of him, and trained it ahead.

For an instant, his heart stopped beating. Clad in a steel breastplate, a skeleton lay before him, an arquebus gripped in the bony fingers of one hand. The whitened skull stood sharply out in the gleam of the lamp against the blackness of the water.

Martin drew back. The sentry in the hold, posted just outside the treasure room.

"Must 'a' been to make sure the crew didn't bust through," thought Frank. "Tough on him though. No chance to get on deck when she went down."

Martin looked more closely at the grim figure; only some tarnished metal shoe buckles and the rusty breastplate still clung to the white frame in his path. The ancient musket seemed to be pointing directly at him. The diver laughed gruesomely at the sight.

"Still guarding those doubloons after all these centuries!" He reached forward, seized the gun. The dead fingers broke away, sank toward the keel as the arquebus slipped from their grasp; under the shock, the skeleton fell apart. Martin swung his light for a last look at the bones rattling inside the breastplate, muttered grimly:

"Your watch is over, old man. You're relieved!" Gripping the sentry's weapon, he crawled cautiously out to start his slow rise to the surface.

On deck, the ancient firearm was scanned curiously as it passed from Carroll to Bob, to the other divers, and around the crew. Martin told his tale a dozen times to awe-stricken groups of sailors. Rumor and superstition swept the ship. Many of the older seamen shook their heads; the ghosts of the *Santa Cruz* would see that no human hands ever reached the treasure they were guarding; the divers would regret it if they went further. Throughout the evening, Tom Carley argued vigorously with the croakers, trying to quiet such outbursts.

"What ails you swabs? Sure them divers'll get the gold. Look how far they've gone a'ready. D'ye think them gobs're afraid of a few stiffs? They're used to 'em. Anyway ain't you sailors got no sense? We'll all get a cut on what comes up. Belay tryin' to scare those divers; y're just cuttin' y'r own throats!"

While the rest of the ship seethed with speculation, Martin described minutely to the captain the condi-

tions in the hold of the wreck while the other divers listened. Carroll summed up the situation:

"Probably the only entrance to the strongroom was through a hatch in the deck over it; the way she lies now, we can't get to the hatch so it's up to us to break through from that passage in the hold. From what Frank says, we'll have to rip some of the planks off the bulkhead. That'll expose the iron; we'll burn through that and then we're in."

The following morning, Hawkins and Williams went over on a two-man dive to tear away the bulkhead; Joe carried a crowbar and a lamp, while Tom dragged after him the devil's claw tongs and a hawser. On the ocean bed, they dragged their gear to the tunnel entrance, dropped down it, and Joe leading, crawled from the bottom of the shaft into the hold of the *Santa Cruz*.

Shining his light, first ahead and then behind, so Tom could follow him, Joe crawled on his stomach over the rough planks and eased himself one by one over the square timber stanchions till he had gone far enough to bring him over the strongroom; then he waited till Tom hauled himself and his equipment alongside.

Together they scanned the bulkhead beneath them through their faceplates as Joe swung the brilliant searchlight, but its beam was immediately diffused by the turbid water and they could see only a few feet. It took them ten minutes to make sure of conditions;

finally Joe selected a stanchion to be torn out so they could get at the joints in the planks beneath.

Laboriously the two divers dragged up the devil's claw and sank the points of the tongs into the heavy timber. The hawser led at a bad angle,—it should have led up to get the best grip, but it had to lead out horizontally down the passage to the tunnel. The tongs slipped free several times; the divers replaced them, struggled to bury them deep enough to hold till the strain came on.

Finally Joe dragged Tom's helmet against his own, shut off his air. Tom did the same.

Joe shouted in his helmet; the sound carried faintly through into Tom's.

"Tom, instead of gettin' clear, we'll have to hold them tongs in place till the ship takes up the slack an' gets a little strain. Then we'll jump clear an' tell 'em to heave around."

"O.K.", yelled Tom. The divers drew apart, hastily opened up on their air valves.

Joe placed the light to shine where they worked.

Once more they dragged the tongs up on the stanchion and adjusted them; while Joe held the tongs in place, Tom turned off his air.

"On deck!"

"Hello, Tom!" answered Carroll.

"Take up the slack on the hawser, but don't heave till I tell you!" Tom turned on his air again.

Lieutenant Carroll signalled the winchman.

"Easy on the capstan now. Take in the slack gently!"

Slowly the line came in over the starboard bitts as the *Lapwing* rolled and the capstan revolved. Ten fathoms came in over the side, the hawser started to tauten each time the vessel rolled to port, but slacked off again as she rolled to starboard. Carroll stopped the winch, took up his transmitter.

"How's that, Tom?"

Below, Tom crawled closer, thrust his faceplate against the tongs. They were not gripping yet. Joe struggled to hold them in place.

Tom moved away, sat up, shouted:

"Take in a little more!"

Carroll, watching the hawser, slowly circled with his right hand as a signal to heave in; the line came in another fathom and started to strain as the vessel rolled away. Carroll stopped the capstan, lifted the telephone to his lips. The *Lapwing* took a heavier roll.

On the bottom, Joe had braced himself to hold the tongs around the stanchion while the tautening hawser gradually pulled the jaws together and sank the claws into the timber. At last they started to grip. Joe let go, reached for his air valve, shut off his air.

"On deck! Vast heaving. Wait till we get clear!"

At that instant, the *Lapwing* took a deep roll, the hawser suddenly tautened with a jerk. The huge timber leaped from the bulkhead through the water,

hit Joe, knocked him flat. The surging hawser slacked momentarily, the tongs jumped free and disappeared down the passage.

Joe, striving to rise, felt his legs pinioned by the beam. He sat up in a daze, felt the square timber resting heavily across both his knees, holding his legs immovable. He struggled a moment, then sank back helplessly. One leg was broken.

It seemed strangely quiet. He thought a moment. The roar of the air through his helmet had ceased. Ah! He had forgotten to turn on his air again after that last call. No wonder he felt dizzy. He fumbled for his air valve, opened it wide.

A cold fear seized him. No air came through! He gripped his airhose, pulled it toward him. He got a few feet of slack, then the frayed ends of a broken hose slipped through his fingers. The flying beam had nipped his airhose and lifeline against the bulkhead overhead and neatly severed them! His air supply and his communication with the *Lapwing* were gone!

He struggled desperately to pull his legs free of the trap; it was useless,—he could exert very little power in the position in which he lay. His breath came in short gasps. The small amount of air inside his helmet was quickly being used up.

Painfully he twisted round, looked for his mate. Dimly through the water he made out Tom's helmeted figure bending over the beam, heaving madly on the crowbar, trying to lift the beam clear. He watched a

second, tried to pull free as Tom heaved on the bar. It was hopeless. In the confined space, Tom was unable to obtain a leverage. He failed to budge anything.

Joe's head started to swim. Despairingly he realized that in a few minutes he would suffocate; even if Tom got him clear, he was still thirty feet inside the *Santa Cruz;* without air he would be dead long before Tom could get him to the surface. The effort to sit up was too much. Half conscious, he slumped sideways, sprawled limply on the bulkhead. The dull light of the submarine lamp started to fade out; he panted for air.

A tug on his helmet. With an effort he turned his head. Faintly he heard:

"Hello, Joe. Are you all right?"

Tom's voice. Joe gasped out:

"Airhose cut. So long, Tom!" His head drooped, his lungs seemed bursting. For a moment his fingers twitched around his useless air control valve, trying to open it wider, then let go nervelessly. He lay quiet.

Tom, who had thought before that Joe was merely foul of the broken timber, was startled to catch Joe's last message, then see him collapse. Tom took another look at the beam. He could never clear it in time; Joe was already dying.

There was nothing he could do there; unless Joe got air within a minute he was gone. Tom seized the light, scrambled desperately out through the passage

towards the tunnel. He reached it, saw a mass of bubbles rising from the mud,—Joe's broken airhose. He seized the hose, crawled madly back into the passage, his lead weights banging against the stanchions as he forced his way through the water.

He reached Joe's body. No air exhausting from Joe's helmet; his weighted form lay quietly half covered by the fatal beam.

Hastily Tom dropped his lamp to the bulkhead, unscrewed his diving knife. He poised it for an instant over Joe's breast, then caught the point of the knife in Joe's suit and cut a narrow slit in the canvas, shoved the end of the broken airhose through the hole, and carefully fed the line in till he was sure its open end was protruding inside Joe's helmet. Then gripping Joe's suit against the hose to prevent it from slipping out, he seized Joe's helmet, pulled him into a sitting position and propped him against the timber.

A second elasped. Then Joe's suit started to bulge over his chest, a trickle of air commenced to bubble once more from his exhaust valve.

Several anxious minutes went by, while Tom held the unconscious diver upright and wondered. Had he been in time? Meanwhile he pulled towards him Joe's now useless lifeline, cut away the marline stops which held it to the airhose, cut off about two fathoms of the line, and took three turns of it around Joe's chest to hold the hose in place, and as a final precaution, took several half hitches with the slack end around the air-

He poised it for an instant over Joe's breast

hose to keep it entered in the hole he had cut in Joe's suit.

With a huge stream of air rushing through his helmet, Joe soon stirred, then gradually came back to life. Tom patted him on the back, pressed his own helmet against Joe's, shouted:

"You're all right now, Joe. I'll clear you!"

Tom recovered the crowbar, carefully shoved it under the end of the beam farthest from the keel. Once more he heaved up on the bar but the passage was so low he could not get a full swing. He changed his tactics. Dropping on all fours, he slipped his brawny shoulders underneath the handle of his crowbar, then heaved up with all his might.

Joe felt the pressure lessen on his knees; the beam rose perhaps an inch; painfully he dragged his numbed legs out from under it. Tom sagged back under the tremendous load, saw Joe was free and let the beam come down once more while he crawled out from beneath the crowbar and moved through the water to Joe's side.

Inch by inch they wormed their way along the passage, Tom watching the makeshift air connection like a hawk, while Joe's useless leg dragged after him, his heavy shoe pulling horribly against the straining flesh. At the tunnel, Tom resecured the broken lifeline to Joe's harness, then crawled up out of the tunnel and pulled Joe up after him.

The two worn divers emerged on the ocean floor.

Joe fell in a heap on the sand. Tom, weak and panting from his exertions under heavy pressure, dragged him to the descending line.

Tom looked him over carefully. Air was leaking out the hole he had ripped through Joe's suit; Joe's rig was full of water up to his breast but that didn't matter much, he could sit upright while they decompressed and keep air in his helmet.

At the descending line, they gave the rising signal and the tenders hauled them up. Tom clambered on the stage and hauled Joe after him.

Not till then did Tom have time to inform the badly frightened deck force of what had happened; why their hawser had suddenly slacked off; and why neither he nor Joe had answered signals or telephone calls.

But in spite of Joe's broken leg, they had to take their decompression to avoid "the bends."

The rolling of the *Lapwing* which had so nearly killed Joe by its unexpected jerk on the hawser, was getting worse as the wind freshened and the seas rolled up. The stage, hanging from the ship's side, swung up and down through the water with every roll. As they reached the thirty foot point and stopped for their decompression at that depth, more trouble started.

At one instant the divers found themselves forty feet down; the next moment the rolling ship jerked them up to within twenty feet of the surface. To aggravate matters, as the crests and the troughs of the waves surged over their heads, the depth of water also

changed. Every few seconds the pressure on them varied from over twenty pounds to less than ten pounds; the eardrums of the divers alternately surged in and out trying to accommodate themselves to the rapidly fluctuating pressures.

Both men developed violent headaches. Tom felt as if his ears would burst each time he suddenly swung towards the surface; Joe experienced a terrible pain in the sinus passage over his eyes where the trapped air, seeking to expand as he swept towards the surface and the pressure lessened, made him feel as if the top of his head were about to blow off.

A minute went by with Tom clinging drunkenly to the bails as they surged up and down and trying to hold Joe on the stage. At last Tom could stand it no longer.

"On deck! Take us up or we'll both pass out!" he shouted.

Carroll signalled the time keeper.

"How much longer?"

"Twenty minutes, cap'n," answered Carley.

He would have to risk it.

"Up stage!"

The winch creaked, a moment later the stage jerked through the surface and lurched inboard; Joe, helmet down on the platform, was clinging desperately to the iron slats while Tom, astride of him, clung to a bail with one hand and clutched Joe's lifelines with the other.

Gently the stage was lowered to the deck. The tenders rushed in; lead belts, lead shoes, went flying in all directions. Off came the helmets. Four sailors seized Joe, and hurried him up the passageway into the recompression tank while Tom crawled in after. Carroll and Bob followed. The door slammed, the air pressure was run up to twenty pounds.

Carefully Joe's canvas suit was pulled off, his left leg bared. A dark bruise covered his shin where the beam had landed; halfway between knee and ankle a ridge showed where the bone had broken. Carroll felt carefully round it,—a clean break, the flesh was not punctured.

While Bob held Hawkins' knee, Carroll seized his foot and pulled hard. Cold beads of sweat stood out on Joe's forehead at the wrench, but the ridge on his shin disappeared as the broken ends of the bone slipped into place.

From the medical chest which had been placed in the outer lock, the captain drew splints, bandages, and iodine. He painted Joe's leg, and while Bob held the splints firmly in place, wrapped turn after turn of linen from thigh to foot. At last he paused and looked at his patient.

"Well, Joe, the old luck holds. I guess they can't keep a good man down, not even if a ship falls on him. How you feeling, old man?"

"The leg's fine, captain, now you've triced it up, but my ears feel awful and another second on that stage

would 'ave made me seasick." He paused, twisted his head to look at Tom who lay sprawled out on a blanket behind him. "Thanks, old shipmate. I knew I could always count on you." His head drooped and he closed his tired eyes.

Carroll and Porter went through the outer lock to the deck.

The sea was worse, the waves were rolling up under the *Lapwing's* counter and breaking there with sledge-hammer blows.

The wind freshened and drove the spray from flying whitecaps in over the weather rail. The ship strained at her moorings.

Lieutenant Carroll looked at the barometer log. It had dropped two tenths of an inch the last hour; a gale was coming.

"Man the surfboat!"

Into the boat, tugging at its painter alongside, tumbled Clark and his crew. The boat sank in a trough as the engineer threw in his clutch, then fairly leaped away as the next crest swept by.

Bill Clark steered for the lee mooring on the port bow; the surfboat rose and fell easily as it ran before the sea. They swept abreast the mooring buoy; the boat heaved up and down wildly on its windward side as two seamen dug their boathooks into the spar to hold alongside while the bowman, balancing himself precariously in the stern, sought to spear the lanyard on the toggle pin with his boathook. The flying spray

swept over them as they surged against the buoy; at last, leaning far out, the bowman caught the lanyard, yanked out the pin. On the next roll, he hit the locking link with his boathook and drove it clear. The bill of the pelican hook flew open and the freed hawser dropped away.

Clark swung his left arm toward the *Lapwing* as a signal to heave in, but it was unnecessary. Already there they were reeling in the line.

The port quarter mooring was let go next; then the surfboat fought its way against the sea to windward where the *Lapwing* strained on her starboard quarter line. It took all Clark's skill to hold his boat against the buoy while it jerked violently under the hawser's pull and barely watched. At last his crew tripped the hook. The *Lapwing's* stern, no longer restrained, swung violently down the wind, while the ship tugged on her last mooring. With all the strain on one line, Carroll felt it too dangerous for the boat's crew to attempt to trip the hawser; the flying pelican hook, when it came free, was likely to brain the man who tripped it.

Seizing his megaphone, he leaned over the bridge rail and bellowed to the boat which was dancing madly among the waves, trying to work its way in a quartering sea up to the last spar.

"Boat ahoy! Belay that! Come alongside our lee quarter!" He turned to the quartermaster. "Keep

your rudder 'Hard left' and make a lee on our port quarter for the boat."

The *Lapwing's* stern swung slightly into the wind as the rudder went over; in the little lee created to port, the surfboat ran alongside. The deck force threw over lifelines; the surfboat plunged up and down as the seas swept by, while her crew, one by one, leaped for the lines and clambered on board. Clark covered the engine, unshipped his tiller, and last of all, leaped for the rail; in a moment, the surfboat, trailing on a long painter, was riding astern. The quartermaster eased the *Lapwing's* rudder and once more pointed into the sea.

Carroll rang up, "One third speed," and forged slowly ahead while he heaved in with the forecastle winch on the sole remaining hawser. At last it came up and down over the starboard bow; he heaved a little more and hauled the spar buoy up over the rail. The *Lapwing* steamed against the sea to relieve the strain on the hawser; Bill Clark cautiously pulled the pin free with a boathook and then with all hands clear, tripped the pelican. The hook flew open, dropped to the deck with a bang while the released spar buoy shot over the side into the sea. They were unmoored.

The *Lapwing* turned slowly to port, rolling violently as the waves caught her abeam, then steamed to the westward towards El Morro.

The crashing of the surf as the waves broke in foaming walls and rushed up the beach reverberated

through the whistling of the wind as they approached the island; at the foot of El Morro, the solid water hitting the rock rose in clouds of spray a hundred feet high.

Bob watched the spectacle in breathless admiration as the *Lapwing* scudded before the gale and swept to the northward of the sentinel rock. To leeward of the island, Carroll dropped anchor in ten fathoms of water, and paying out his cable to the bitter end, rode to the storm.

In the cabin, as their little vessel yawed and pitched, the captain and his friend compared notes.

"Lucky for Joe, and incidentally for all of us," said Carroll, "that Tom got him clear before this storm broke. We might have lost them both inside; I couldn't have hung on much longer for our mooring anchors would have dragged and shot us down the wind. The boys all right?"

"Yes," replied Porter, "I was talking with 'em again over the telephone in the recompression tank. They're both seasick from trying to ride that bucking stage just before we hauled them in and they say they got a terrible earache. Joe's broken leg doesn't feel any too good; outside of that they think they're O. K. But I don't quite see how Tom dared cut open Joe's suit to give him air again. Did you ever hear of anything like that?"

"No, Bob, I haven't. Divers have had their airlines cut before, but that was their finish. They never

came up alive. Tom's a genius for thinking out the trick he used to save Joe's life. It's never been done before. And yet it's safe enough. Even with a hole in his suit, as long as Joe had his helmet uppermost and air going into it, the water that ran in through the cut could never rise into his helmet; it would fill up his suit all right but Joe could still keep on breathing. He was like a diving bell; it's open at the bottom but it's watertight on top and the air trapped in the bell stays there.

"Well, I guess Joe owes his life to Tom's quick thinking all right. Probably an ordinary diver would have lost his head altogether and let Joe die while he struggled trying to get him clear of that beam; even an excellent diver would have thought it necessary to try to get a new airhose and a wrench and couple up the new hose to the joint on Joe's helmet. If Tom had tried that, I guess by the time we got the hose and wrench down the descending line and he dragged them inside that passage in the hold, Joe would have passed the point where he ever needed air any more.

"Yes, Tom's ripping open Joe's suit and shoving his broken airhose up into his helmet was a positive stroke of genius. When you think of the conditions down in that hold, with poor Joe fouled and suffocating, and Tom himself in a pretty tight place, it's a real miracle he could think at all, let alone pull the stunt he did. I tell you, Bob, it certainly pays to keep your head in a tough situation and *think!*"

CHAPTER XVIII

THE TREASURE ROOM

THE storm blew for two days, while the *Lapwing* pitched erratically at the end of her cable and her crew lived on the scanty meals that the cook managed to prepare amidst his flying pots and pans.

In his bunk, Bob Porter braced himself against the leeboard and tried to read but the motion was too violent and he was unable to follow the lines. He tossed the book to his desk and looked out the port—on a world of flying spray and tumbling waves. The anchor cable groaned as it surged back and forth in the hawsepipe; the wind whistled through the bridge overhead and the seas pounded loudly as they hammered the *Lapwing's* bow.

Bob left his bunk, slipped on an oilskin coat and a sou'wester. He went through the lee messroom door to the deck; the wind struck him and swept him back a few feet till, leaning forward, he was able to make headway against it and worked his way up the forecastle to the eyes of the ship.

He thrilled to the power of the sea as he watched the huge storm waves rush up, crash against the bow, and sweep in a mass of foam and broken water down their sides.

As the deck rose and fell beneath his feet and the salt of the biting wind stung his face, his heart swelled with the realization that he was at last a seasoned sailor; he could ride out a storm with the best of them.

After two days, the weather moderated, but another day went by before the long swells which followed in the wake of the gale had calmed enough to allow the *Lapwing* to moor again.

The three days' break in the work had its compensations, however. The tired divers welcomed the opportunity to recuperate. In particular Tom Williams, whose back was so stiff from heaving against the crowbar that for several days he did not leave his bunk, was able to maneuver around the deck when the motion of the ship eased down.

But in spite of the respite, the strain of working under pressure was showing up. All the divers had lost weight; every ounce of fat had been burned out of them by breathing highly compressed air at the bottom of the sea. Quietly they moved about the deck or lay silently in their bunks. Their spirit of banter was gone; the constant strain of watchfulness against unseen death waiting to seize them if they made a slip, had left its mark. Williams, Clark, and Hawkins in turn had suddenly found themselves fighting in the solitude of the depths for their lives; they had escaped, but memories of their peril brooded over them and kept alive the fear of dangers yet to come. Only Martin had been spared, but even he had firmly

burned into his memory that terrible hour of struggle when Tom Williams dangled limply from the mooring hawser on the end of a fouled lifeline and flew helplessly through the water each time the cable surged while Frank strove frantically to save him.

The weather calmed, the *Lapwing* moored. Once more the side was rigged for diving. Tom Williams and Bill Clark went overboard armed with a submarine light, a crowbar, and a sledge. They eased themselves into the tunnel, squeezed into the passage, and crawled aft to the strongroom. They scrambled over the loose beam which had trapped Joe; just beyond it they found a point where several planks had butted in wake of the stanchion. The broken treenails protruded up into the passage, threatening to tear open their suits. Clark swung his sledge and broke off the jagged ends. Tom jammed his crowbar into an open joint, worked it down till it struck the iron plating underneath. Together the divers swung their weight down on the plank, ripped out a splinter, widened the gap till they could push their bar well underneath and then heaved down till the plank rose out of the bulkhead and they broke it off against the stanchion aft.

They attacked the next plank. With sledge and bar they broke it out; the crash of wood and the ring of the sledge echoed through the silent hulk of the *Santa Cruz* as the grotesque figures of the divers toiled over the bulkhead. In silence they signalled each other to bear down on the bar, to batter with the sledge, to shine the

light this way and that as they tore out the water-logged planks and exposed the iron room beneath.

On deck, Bob on one phone, Carroll on the other, listened to the sharp ring of the hammer, the ripping of the timbers. No word came up; no messages were sent down to annoy the workers. The minutes sped swiftly by; at last Tom Carley who was keeping time announced:

"Fifty minutes on the bottom!"

Carroll turned to the tenders fishing the diving lines over the rail, ordered:

"Stand by to come up!"

Each tender jerked his line four times; through the sea, down the tunnel, into the passage inside the wreck, the lifelines carried the signal to the divers. They paused in their work, gripped the lines trailing from their breastplates, signalled back.

Tom picked up the light, shined it over the spot they had been working on. Five planks were gone. The opening was large enough. He seized his crowbar, Bill picked up his sledge. Leaving behind a trail of bubbles as they went, they crawled out the passage, onto the ocean floor.

Leaving the lamp at the tunnel mouth, they crunched across the hard sand bottom to the descending line, and soon were on the stage, their decompression started.

Tom made his first report.

"On deck! All ready for the torch!" He started

to exercise vigorously to accelerate his decompression and soon both Tom and Bill were deeply engrossed in submarine calisthenics.

Frank Martin slid down past them, the torch dangling from a lanyard on his wrist. He reached the bottom, reported, looked upward through the water to see that the torch hoses were free of the descending line and not tangled in his own lines. Everything was clear; in an easy sweep the hoses led up through the quiet water and faded into the sea above.

The diver moved into the shadow of the poop, picked up the lamp at the black pool which marked the tunnel, and vanished through the ocean floor. Impeded a little by the many lines trailing behind, he dragged the lamp and the torch down the passage, over the torn planks and came at last to the spot where the wooden bulkhead lay torn apart.

Martin swung his lamp over the debris. Blackened iron plates met his gaze. He rapped them with his shoe. A solid ring came back. The plating was at least an inch thick; the strongroom of the *Santa Cruz* was strong indeed.

Frank unscrewed his knife, dug its point into the iron. A thin coat of rust broke away, underneath the bright metal gleamed in the ray of his searchlight. Not much rusting. Just like those submarines. There was no air at the bottom of the sea to oxidize the iron; corrosion had hardly started.

Martin placed his light to one side, shining over the

exposed iron, and cleared away the broken lumber that littered the opening. He set his exhaust valve so he could lie down, stretched himself out flat on his stomach, and pulled the torch up in front of him.

He was at full depth,—the bottom one hundred and eighty feet from the surface, and he some twenty feet below the bottom, two hundred feet down altogether. He had never tried the torch at such a depth before.

He turned on his gases,—the air, the oxygen, the hydrogen, one at a time, adjusted each one carefully. The stream of gases shot out under high pressure from his torch, rose in a mass of fine bubbles into the water.

Martin reached for the rubber cable to the igniter, dragged it up, and swung the contacts over the torch. He shouted out:

"Turn on the igniter!"

On deck, the electrician threw in his switch. Carroll answered:

"The igniter is on!"

Martin released the contacts. A spark flashed, the torch lighted off with a terrific bang, a brilliant ball of flame flashed in the darkness. Against the high pressure of the water the torch burned with a roar like an unmuffled airplane motor.

On the *Lapwing*, Carroll heard the familiar rumble over Frank's telephone. He called to the electrician:

"Turn off the igniter!"

Martin dropped the igniter, swung the torch through the water, and guiding the tip with his left hand,

brought the flame down against the metal. A few sparks flew as the rust dried under the flame and cracked off, then a dull red spot started to form under the tip and in a few seconds glowed brightly. Frank squeezed the trigger on his torch; the flame lengthened out, a jet of pure oxygen shot through the center of the flame and hit the glowing iron. It caught fire. Brilliant white streamers flew through the water in all directions, more gorgeous than a fireworks display. Another second and the flame had punched through the heavy iron. The sparks blew through inside the room below and the brightness faded out; only the glow of the torch itself remained. Slowly Frank guided the flame along; in the wake of the spurting oxygen, the iron vanished, leaving a cut in the metal an eighth of an inch wide. Carefully the diver drew his orange flame along, watching it closely through his faceplate to keep his torch tip the right distance from the metal.

The cut lengthened, a black streak showed in the wake of the torch. Under the jet the iron flamed pure white,—a quarter of an inch away the water quenched the burned plate. A cloud of bubbles and of steam rose from the fierce heat, but protected by the water, the diver's fingers, within an inch of the tip, held it steadily to its path.

Four feet of iron were severed in as many minutes, then Martin swung his torch around the corner and started to cut at right angles. Steadily the flame cut through; in the blackness below, Frank could see the

sparks flashing as they shot downward and the torch moved on.

The job was half finished. Frank's outstretched arms could no longer guide the flame and the cut became jagged. He let go his trigger and lifted the torch. He dragged his bulky frame up closer, slewed himself parallel to his last cut, and picking up the spot where he had left off, brought the flame once more down on the plates, and quickly preheated the iron. Again he pressed the trigger; the metal in wake of the oxygen flared white and burned away. No need for his submarine light now. The glow of the iron in the water lighted up the passage, and cast a huge shadow from his helmet against the woodwork overhead.

Three sides of the cut were done. Martin crawled round so that he lay facing the fourth side and resumed his work. The torch bit into the plating and as the cut neared its end, the large square of iron sheathing started to sag down into the water-filled room below. Only a foot of metal remained unburned; as inch by inch this vanished, the plate sagged more and more, leaving a gradually increasing black hole in the bulkhead. Martin glimpsed it through the top of his faceplate but kept his gaze riveted to the flame he was guiding till there remained only half an inch of iron, when the plate suddenly dropped, tore away the remaining metal and fell with a metallic ring into the dark room below.

Martin shut off his valves. The flame went out,

leaving only the diffused light from his lamp several feet away. He crawled carefully round the hole he had cut, to the lamp, picked it up and started to train it into the opening.

In the sudden quiet which followed the banging of the torch, he heard a far away call in the earphones strapped over his head.

"Hello, Frank!" He shut off his air.

"Hello!" he shouted.

"Your time's up! Are you done?" asked Carroll.

"Yes!" answered Frank. "Lemme stay down a few minutes more, captain, I'm just going into the strong-room!"

"Nothing doing. Stand by to come up!" ordered the skipper, and to make sure Frank understood he said to the tender:

"Give him 'four'!"

The tender jerked the signal on the airhose; Frank, stretched out inside the *Santa Cruz,* gripped his line and answered it. Regretfully he cast one look into the black water in the gap he had cut, then gripped his torch and the lamp, and as his tender above slowly hauled in the slack on his lines, he crawled out to the descending line and was hauled up to the stage.

Work ceased for the day when Frank finally was swung in over the side and undressed. Three men had been down.

The ship quivered with excitement. The way to the treasure room was clear at last, the weather was calm,

the day only half gone, and yet they lay idly on the surface.

Leaning over the rail, gazing at the placid ocean broken only by the gently heaving mooring buoys around them, Bob pleaded earnestly with the captain for a chance to go down.

"I've practised with the rig, captain, till I can find every part of it in my sleep; and you know I've been over the side on the stage when the other boys weren't down and I'm accustomed now to being under water. Come on, skipper, be a sport!"

Carroll shook his head. "The pressure'd get you, Bob; and even if it didn't I couldn't let you go roaming round in all that wreckage. It isn't necessary; we'll get in tomorrow. I know you're all right in a diving rig; if the water weren't too deep, I'd let you take a walk on the bottom, but a wreck's different and deep water is another thing. We've been here two months now. Hang on another day. You want to see Boston again, don't you?"

"I'd trade my chance of ever seeing Boston again for one look at the *Santa Cruz!*" said Bob ruefully. "Just think, I'm only thirty fathoms from it." He leaned restlessly over the rail and stared into the sea as if trying to penetrate the depths.

"Cheer up, old man." Carroll placed a sympathetic hand on his shoulder. "Here I'm a qualified diver myself, and I'd give a year's pay to get down on the poop of that old galleon but I'm never going to see her.

I've got to stay on the top side for the safety of the ship; I've got to keep you here for your uncle's sake. You've done a lot on deck, Bob, to help out. You'll have to be content with that."

The day dragged slowly on. A few miles to the westward, El Morro Island, wreathed with a fine white line of surf, broke the horizon. Everywhere else, nothing marred the sharp line where sky met sea. Eight weeks had passed since they arrived; no sail had ever come in view. The *Lapwing*, the mooring buoys, the little island to the westward were all they ever saw to break the endless monotony of the ocean. Now the end was in sight, and all hands waited eagerly.

Morning came. Clark was dressed, armed with a lamp, a heavy canvas sack, and a manila line. He swung overboard, sank in a swirl of bubbles while his lifelines and the extra line he carried ran swiftly out over the side.

"On the bottom!" he reported, and while the tenders fished his lines out more slowly, he dropped down the tunnel, stirring up a cloud of mud in the water as his bubbles streamed out, then squeezed through into the hold and wormed through the water, dragging his bag and shoving the lamp ahead of him each time he jerked along.

He crawled over the shattered bulkhead and came to the hole in the iron that Frank Martin had burned out. He shoved his helmet over the opening, dangled

the lamp in it, and strained his eyes downward. Only a dull glow quickly fading into the water met his gaze. He threw his canvas bag into the hole.

The boatswain's mate untied the line secured to his left wrist, jerked it sharply for more slack, then hauled it down till some six fathoms lay coiled beside him. He took a clove hitch round the beam which had once trapped Hawkins, tested the line to make sure it was safely fast, and then tossed the slack end into the opening. He lowered the lamp down after it, leaving himself in darkness.

Gripping the manila line, he swung his lead shoes into the hole, cautiously eased his diving suit over the rough edges of the burned plates, and hand over hand slid down into the strongroom of the *Santa Cruz*.

A glow from the lamp filtered up from below, brightened as he descended. With a dull ring, his feet touched bottom. He let go the line, stooped over and grasped the lamp. He swung it round in the clear water of the strongroom.

He gasped. In every direction as he gazed, the bright gleam of gold danced through the water at his feet. He was standing on a floor paved with pigs of gold, covered with yellow idols stripped from Inca temples, piled in tumbled heaps where they had fallen when the *Santa Cruz* took her last plunge.

He flashed his light around. Gold everywhere! Bright yellow in strange shapes, the centuries and the

sea had not dulled its luster! And against the black background of the strongroom walls, the shining mounds of precious metal stood sharply out.

A weird scene. The diver in his clumsy rig, air bubbling out in gusts from his helmet and surging upward past his lifelines to the hole ripped overhead, his searchlight flashing through the water, while beneath his lead-soled shoes gleamed the treasure of the Incas, the booty of the Spaniards, the prize snatched from Drake's grip when the *Santa Cruz* had vanished in a burst of flame!

Even Clark, phlegmatic like all divers, gazed in awe at the wealth strewn haphazard at his feet. Not for several minutes did he recall his mission.

At last the spell was broken. He stooped, seized the nearest bar. It slipped from his hand, landed heavily on his foot, crushed in the copper toe cap.

"I should 'ave known better," he mumbled to himself, "this stuff's heavy. Lucky the water cushioned that wallop."

He looked round, spied his bag, spread it wide open in the water and dragged four pigs into it. Lightening up his suit, he climbed the line to the passage above, then heaved up the bag with its precious load. He could barely haul it up. He dumped the bars into the passage and dropped again into the strongroom, to load in four more bars.

Martin managed to bring up sixteen pigs all told and get them to the tunnel bottom when there came the

four jerks on his lifeline that warned him to come out. He cut the line to the surface behind the beam, leaving the lower end hanging down the strongroom. The other end he tied carefully round the neck of his bag as it lay in the mud at the bottom of the tunnel; then he signalled to heave in. On the *Lapwing,* two tenders straining on the line failed to budge it; the line had to go round the capstan to lift the eight hundred pound mass of gold out of the tunnel.

Clark followed it out, guided the line and the canvas bag clear of the poop and making sure he was himself not foul of it, ordered:

"On deck! Take up the line!"

He leaned against the wreck, looked up through the top port in his helmet, saw the line stretch, and watched the first load of the treasure of the *Santa Cruz* start from the depth which had gripped it so long and vanish in the water above. A quarter of a million dollars in gold! Bill Clark stared after it till the canvas bag rose over the poop and disappeared. His gaze dropped to the tunnel in which he had once nearly perished, fighting his way to the treasure room. He shuddered at the recollection.

Clark strode to the descending line, signalled vigorously to be hauled up.

CHAPTER XIX

THE SURFBOAT

Tom Williams and Frank Martin followed Clark, and when the latter finally rose to the surface, forty-five bars of gold, nearly three-quarters of a million dollars, rested under lock and key in the *Lapwing's* forehold.

Bob Porter, wild with excitement at the fulfillment of his dream, wanted to radio Major Houghton of their success but Carroll calmed him down.

"We're not broadcasting anything, Bob, least of all that. Our radio hasn't let out a peep since we got here, and it's not going to. You never know where even a code message gets picked up. We'll have to keep our secret a few more days. We can't take any chances now."

Bob took a bar of gold down to the divers' quarters, where he proudly exhibited it to Joe who lay with his bandaged leg in a lower bunk. Both of them listened fascinated long into the night while Tom, Bill, and Frank for the hundredth time described their adventures in the strongroom, the wealth strewn round it. They estimated it would take at least a week for the three of them to lift the treasure out.

Early next morning, with the sea still calm, Tom Williams came to the dressing bench. His suit was on,

his breastplate bolted up, and the dressers were lacing on his shoes, when Bill Clark, who was supervising, looked casually out at the after mooring lines. He straightened up with a start, stared over the stern a second, then ran forward and burst into the cabin, nearly knocking over Fitz who spilled a pot of coffee over the table cloth.

Lieutenant Carroll looked up startled.

"Captain, the surfboat's gone!" cried the boatswain's mate.

Carroll calmed down. "Is that all?" he asked. "By the way you knocked over Fitz, I thought somebody'd been killed! Well, how'd it carry away? Wasn't the painter strong enough?"

"Nuthin's carried away, captain. She's gone, painter 'n' all!"

A sudden dread seized Carroll. He leaped up, ran aft to look. Yes, there was the cleat the painter had been secured to, but no frayed end of line remained. He turned sharply to Clark.

"Belay diving! Muster all hands!"

The shrilling of the boatswain's pipe rang through the ship, followed by the hoarse cry:

"All hands on deck!"

From messroom, bunks, and holds the men poured out, fell in at quarters. The boatswain's mate mustered the deck force, the engineer officer checked up the black gang.

Clark saluted his captain, reported:

"Two men missin', sir. Tom Carley an' Pedro Gomez 've jumped ship!"

A hasty examination showed three drums of gasoline were gone as well as the boat and the two men.

Carroll's orders were brief and sharp. He called the engineer.

"Full power on both boilers, chief. We're getting underway at once!" And to Clark, he shouted, "Get an ax! We haven't time to hoist over the motorboat and unmoor. Cut those hawsers!" Carroll ran for the bridge, nearly falling over Tom Williams who, sagging under his breastplate, still sat on the dressing bench, blocking the starboard passage.

"No diving today, Tom," he called as he untangled himself and continued forward.

An ax flashed down on the rail, buried itself in the hemp strands of the thick mooring line. The hawser splashed overboard. Clark ran across the fantail, cut the line there, then hurried to the forecastle and with two more blows of the ax, freed the ship. The slack hawsers drifted lazily down to leeward from the spars, which, with the strains released, floated high out of water.

On the bridge, Carroll swung the engine telegraph to "Full Speed Ahead." The sea churned up under their stern, the ship gathered headway.

The quartermaster looked enquiringly at the captain.

"Course East by North," called Carroll. "Full right rudder!"

"Full right rudder, sir!" echoed the helmsman.

A heavy cloud of black smoke poured from the *Lapwing's* funnel. From the boiler rooms came the roar of the blowers as the forced draft fans raced, and the firemen opened their burners wide. Quickly the main engine speeded up; within five minutes the screw was making a hundred revolutions, its maximum, and the *Lapwing* was racing towards Guayaquil. El Morro Island dropped from sight astern.

On the bridge, Lieutenant Carroll searched the horizon through his binoculars. There was nothing in sight.

"Well, Bob," he said, at last, "I'll bet I can tell you now who stole your book that night."

"Yes, captain, I guess you can. Pedro. And I suppose Carley's just as bad. Now we've got at the gold, they're off. What's their game, do you think?"

"It's hard to say, but nothing that'll help us, you can bet. Have the Peruvian government seize the gold perhaps. It came from Callao originally, and El Morro belongs to Peru, but we're lucky on that. The *Santa Cruz* is on the high seas, a hundred yards outside the three mile limit. Still they might grab us first and argue about it afterwards. And I suppose those two wharfrats'd get paid handsomely for the information."

The ship swept on. An hour went by, two hours, eight bells struck. They had been underway six hours. Nothing was sighted.

Carroll became a little anxious.

"They'd head for Guayaquil, that's nearest, and the gasoline they stole would just about take 'em that far."

"How fast can that surfboat go?" asked Porter.

"About eight knots. They couldn't have had more than ten hours' start on us. Queer nobody heard the engine when they shoved off. I guess they must have rowed the boat till they got half a mile away, then started up the motor."

Bob figured a moment, "We're making fifteen knots. At that rate, it'll take us twelve hours to cover the hundred and eighty miles to Guayaquil. At eight knots, it'll take the surfboat nearly twenty-three hours. If they haven't more than a ten hour start, we'll catch them an hour's run off the coast."

"We will if I'm right about their course. And if I'm not, we're in for trouble!"

The propeller throbbed steadily, the *Lapwing* surged across the waves.

In the crow's nest, a double lookout, changed every hour, scanned the far horizon, while the deck force manned the rail and searched the sea in every direction for signs of the missing boat.

The boatswain's mate swore profusely as the hours went by without bringing the surfboat over the horizon.

"Never cared much for that —— —— Pedro. An' that Tom Carley was alluz takin' too much interest in the wreck, blast his tarry hide!"

The sun sank low in the west. Far ahead the mountains on the coast rose above the sea off the starboard

bow as the ship headed in for the Gulf of Guayaquil. Still no boat.

Carroll searched ahead anxiously.

"Another hour and it'll be too dark. And I was so particular about picking the crew. A lot of good an interpreter's been to us so far. And now Pedro and Tom'll probably cook our goose. If a Peruvian warship ropes us in, it'll be a case that international sea lawyers'll fight over till we're all dead. We'll probably win on about the tenth appeal forty years from now, but a lot of good that'll do us. I'd rather fight the sea. I've had enough of law testifying in that *S-51* case. The ship sank four years ago, and the case has only got to first base, so to speak. The last I heard of it, the first appeal was pending and the Lord knows when that'll be heard so's it can be appealed the second time."

"I hope we catch 'em, captain," replied Bob, "but it might be worse. Just think, you could resign from the Navy, marry a señorita in Calloa, and spend the rest of your life testifying before these spiggoty courts. By the way, how's your Spanish?"

Carroll laughed. "Only fair. I don't know that it's good enough to make any señoritas fall for me. But I'll be hanged if I want to try. If we don't catch 'em, I've half a mind to take what we've got and beat it north."

For the hundredth time, they searched the waves ahead. The dark coastline to the north and south

obscured the horizon, but in between where the broad Gulf of Guayaquil ran inland, nothing was visible.

"Boat ahoy!" shouted the lookout.

Carroll raced up the mast. Far to the southward, in against the mountainous background off Tumbez, a white speck stood out in the gathering darkness.

"Hard right!" ordered Carroll. He clung to the Jacob's ladder as the bow of the *Lapwing* swung round, conned the ship till the distant object came dead ahead, then dropped back to the bridge and ran to the engine room voice tube. He punched the bell, pressed his ear against the tube, heard:

"Engine room, chief talking."

"The boat's in sight, chief. Crowd on everything you've got!" He closed the tube.

The blowers sang at a higher pitch and smoke poured out thickly as more oil was sprayed into the roaring fires. The hull quivered as the engine with flying cranks and huge connecting rods pounding, squeezed out a few more revolutions on the screw.

The sun set, the brief twilight disappeared, darkness fell. The electrician manned the searchlight, turned it on. A sharp blue beam cut through the night, a long finger of light searching along the crests of the waves, now on the starboard bow, now to port; first close aboard, then in widening circles far ahead.

They raced along. The boat had vanished in the night while still five miles off, but fifteen minutes later,

the circling beam swept over it, then steadied as the electrician trained back.

Brightly illuminated in a circle of light against the dark sea, the surfboat stood out a mile away. Carley at the tiller jammed it down and changed course to shoot away in the darkness. The relentless finger of light followed him, prisoned the twisting boat as it swung first starboard then port, seeking the cover of the night. Pedro was bent over the engine, Carley clung to the tiller as the little boat danced up and down in the bright glare on the water.

The *Lapwing* swept up. Clark, Williams, and Martin, Springfield rifles at their shoulders, leaned over the starboard rail and covered the men in the boat.

Lieutenant Carroll stopped his racing engine. A cloud of steam whistled up the stack as the safety valves on the boilers blew off violently.

Carroll lifted a megaphone and above the din of escaping steam roared out:

"Surfboat there! Come alongside!"

Tom Carley, half blinded by the glare of the searchlight, looked toward the *Lapwing* straight into the muzzles of two rifles. Behind them he could make out the faces of two expert Navy marksmen, one eye shut, the other eye squinting along the sights. Pedro, crouching behind the motor, stared down the barrel of a third rifle. There was no escape.

"Aye, aye, sir!" answered Carley. Then in a lower voice to his companion, "The jig's up, Pedro, but you

lemme do the talkin'. Remember, we wuz just jumpin' ship; we didn't wanter go back to the States!"

He put his tiller over, circled to starboard, and in another moment was heaving up and down against the *Lapwing's* side. Two seamen leaped into the surfboat; still covered by the rifles, Pedro and Carley crawled over the side; dirty, bloodshot from the spray which had swept them in the frail boat for twenty hours, sullen at their failure, they faced Lieutenant Carroll on the bridge.

"Got anything to say?" asked Carroll.

Carley shifted his weight from one leg to the other, uneasily; Pedro muttered a string of oaths.

"Put 'em in irons, Bill," ordered the captain. The boatswain's mate slipped a pair of manacles over Carley's wrists, clicked them closed. He drew out a second set, turned towards the other prisoner.

Pedro, at the sight of the heavy irons, became suddenly livid.

"Diablo!" He ripped a knife from inside his jumper, leaped at Carroll. The blade flashed up, came down. Bob shot through the air, made a long flying tackle and knocked Pedro to the deck. As they struck, Bob saw the shining blade rise over his own back, instinctively closed his eyes as Pedro's arm swung downward. Bob, lurching sideways desperately to avoid the thrust, felt a marlinspike whiz by his cheek, crash against Pedro's head. The struggling

legs he gripped went suddenly limp, the knife clattered harmlessly to the deck as Bob rolled away.

"Good shot, Bill!" cried Carroll as the boatswain's mate slipped the irons on the unconscious Spaniard.

Bob picked himself up slowly, stared at the captain, whose left sleeve was ripped open, while blood streamed from a deep gash in his shoulder, where Pedro's deflected blow had caught him. Carroll was holding the cut closed with his right hand.

Several seamen rushed up on the bridge.

"Take these deserters below," ordered Clark. He seized Carley, the sailors lifted Pedro. They started down the ladder.

Carroll called to Tom Williams, who stood on the deck below:

"Secure the surfboat aft on a long painter, Tom; we'll tow it." He turned to the quartermaster. "When the boat's made fast, head due west for El Morro, standard speed."

He clutched his wound tightly, motioned to Bob with his head.

"Let's go below, Bob, I guess the excitement's over!"

The captain's stateroom soon resembled a sickbay. Bob, glad of his first aid knowledge, spread iodine lavishly over the cut in the skipper's shoulder, while Fitz stood by, holding bandages, scissors, and tape. Carefully Bob covered the wound with gauze, wiped away the blood, wrapped the long rolls of linen over and under the arm and back and forth around his

patient's body to hold the gauze in place. At last he was done; Carroll's arm was firmly bandaged to his side.

Fitz gazed proudly at the job.

"You shuah makes a gran' surgeon, Mistah Bob; de cap'n can't wiggle his fingahs nohow."

"You'll have to feed him with a spoon, I guess, Fitz," replied Bob, as Fitz went out, taking the medicine kit with him. He looked anxiously at the captain, whose blood-soaked shirt and blouse lay on the deck near by. "How d'ye feel, skipper?"

"Good enough, Bob, thanks to you. Nasty dig Pedro gave me, but if you hadn't taken him out with that tackle of yours, there wouldn't have been any need for bandages. I guess no one can ever tell me again that a college education is wasted." He smiled ruefully as his shoulder throbbed. "Well, we've got two cripples now,—Joe and I'll make a fine team,—each with a lame wing. I guess I'm the luckier though, for I can still run my job, while poor Joe can't."

He paused. The ship quivered, the propeller started to throb. Looking out the port, he saw the phosphorescent spray leaping past the rail.

"I guess we're underway again for El Morro. By this time next week, Bob, we ought to be heading home."

The thought of home brought a sudden recollection to his mind. He glanced with relief at his young companion.

"For a second, I saw your finish tonight, old man, when Pedro started to knife you. You'd thrown him clean across the bridge; there wasn't one of us within ten feet of you when that knife started down. I'm certainly thankful Bill Clark's been a boatswain's mate long enough to know his marlinspikes; he clipped Pedro with it before any of the rest of us knew what was happening."

"It was short and sweet," grinned Bob. "Must have been all over within four seconds,—you wounded, Pedro knocked cold, and yours truly opening his eyes again, a little surprised not to feel a knife sticking in his back." He wriggled his shoulders apprehensively.

CHAPTER XX

"THE BENDS"

NEXT morning they were back off El Morro, but it required two days' work to retrieve the severed hawsers, bring them aboard, and put a long splice in each one where they had been cut. The boatswain's mate himself did all the splicing, plying the heavy marlinspike with which he had felled Pedro; other sailors helped him tuck through the heavy strands as he worked away from the spot where he had married the two ends of the hawser. Carefully each hawser was made good; Tom Williams and Frank Martin examined the finished job to make sure it was safe to hold the ship while they dived.

In the late afternoon, Lieutenant Carroll, one arm inside his blouse, took station on the bridge and steered in among the buoys over the wreck, while the surfboat shuttled back and forth with the repaired hawsers. Shortly the *Lapwing* lay as before, firmly moored over the wreck.

Carroll came down the bridge as twilight fell and watched the sun sink behind the pinnacle on El Morro.

"Three days lost," he said bitterly to Bob, "and our oil's getting low. It'll be nip and tuck now whether it lasts till we get through. I've told the chief to cut

down all the steam he can. We used up more oil chasing that surfboat than we'd burn in two weeks out here." He glanced towards the forecastle thoughtfully. "Anyway, those two scoundrels are safely in the brig forward where they'll cause no more trouble. That's something."

Dawn came; once more Tom Williams seated himself on the dressing bench where three days before he had been dressed to dive. His rig went on, he clambered to the stage, went down, dragging the canvas bag and the light. Down the tunnel, through the passage, into the *Santa Cruz;*—he made his way through the water into the strongroom. He lost no time. His great strength was an advantage dragging out the heavy pigs, he managed to get twenty bars, half a ton of gold, out of the passage into the tunnel during the fifty minutes that he struggled inside the poop.

His time was up. He was panting deeply, his heart beating rapidly from the exhilaration of the highly compressed oxygen that each breath sent through his lungs. He closed the bag, lashed the mouth firmly with the manila line, and felt blindly around in the blackness of the muddy tunnel for his lamp. He gripped it, signalled on the lampcord to haul it up, then signalled to hoist out the bag with its precious cargo. He squeezed against the side of the tunnel as the line tautened and the gold rose past him; the hoisting line slipped a little and the heavy bag swung against his helmet, driving it sharply into the mud at

the side of the tunnel. The bag surged clear and rose; with an effort Tom pulled his helmet free of the clinging clay; his hands groped up, felt his helmet. His faceplates were plastered with soft mud and sand,—a few brisk rubs with his hands and the water washed them clear. Tom opened his air valve wider, lightened himself a little, and climbed out on the ocean bed. The bag of gold was already on its way up.

Four jerks on his lifeline. He started along the bulkhead for the descending line, reached it, paused a moment before giving the answering four jerks to be hauled up. His suit was covered with clay. He rubbed it vigorously; clouds of mud spread through the water and the *Santa Cruz* faded from view.

He shook his heavy shoes to wash the clay from them, then satisfied, felt round for the descending line, gripped it, and seizing his lifeline, jerked it briskly four times.

A strain came on his lifelines, he was pulled off the bottom, hand over hand the tenders started to haul him. To lighten up a bit and ease the weight for them, Tom opened his air inlet valve wider, and screwed down a trifle on his exhaust; air continued to bubble out into the water, but in lesser volume.

He went up a few feet further.

Tom's suit started to bulge a little more. Mechanically, he swung his left hand up to his breast, to throttle down on his control valve and reduce his buoyancy. But hardly had he started the motion when the bub-

bles suddenly stopped exhausting from his helmet. His suit swelled out with a rush, his canvas sleeves bulged out stiffly, straightening out his arms, he became buoyant and started to float up.

In a flash he realized his danger. The mud had clogged his exhaust valve, jammed it shut! No air could escape from his suit, but air was still coming in through his airhose.

Frantically he tried to bend his arm to get his hand on his control and shut off his air, but his over-inflated suit became rigid. He could not bend the sleeves,—he was "spread eagled."

His suit ballooned out, gave him tremendous buoyancy. In despair, Tom felt himself shooting to the surface. No decompression!

Faster and faster he rose, his suit swelled out to vast proportions. The water pressure decreased rapidly, his ear drums surged outward, his head became dizzy. Hazily he could see the water rushing downward past his faceplates. His slack lifelines dangled in an ever-increasing loop beneath him.

Tom's head swam, his lungs swelled as if about to burst. He made a last feeble effort to bring in his arm and close the valve. It failed. His head fell forward against his helmet, he lost consciousness. He raced upward from the depths.

A second later, like a tarpon he burst through the surface, rose clear of it nearly five feet and fell back with a tremendous splash into the sea.

On the *Lapwing* the startled tenders gazed as if petrified. Lieutenant Carroll hurriedly brought them back to life.

"Heave in, heave in on that lifeline!" he yelled, then, "Martin! Clark! On the stage!" The two men jumped aboard. "On the winch there. Up stage!" The stage was hoisted over, lowered till Bill Clark and Frank Martin were standing in the water up to their waists.

Meanwhile the tenders had pulled in over a hundred feet of slack, and the taut lifeline was beginning to haul on Tom who floated fifty feet away like a balloon;—face down, arms outstretched, motionless. Hastily they reeled him in, brought him alongside. The boatswain's mate pulled him onto the stage.

"Up stage!"

In went the clutch, the stage was jerked over the side, dropped on deck. Martin whipped out his knife, ripped open Tom's suit, cut away his harness, his belt, his shoes. Without waiting to unscrew his helmet, Frank and Bill dragged the unconscious diver out the hole cut in his suit, tore off his telephone headgear, and seizing Tom at head and foot ran up the passage with him.

In through the door of the "iron doctor" he was flung; Carroll, Frank, and Bill tumbled after him. The door slammed to, Bill swung down the dogs.

Carroll sprang for the air valve, twisted it wide

open. Air started to rush in, the pressure rose rapidly, the needle on the gauge inside lifted off the pin, started to revolve.

Tom lay on the deck, Bill and Frank cutting away his clothes. Carroll stared at the gauge. The air sang past,—30, 40, 50 pounds. Carroll's ears began to ring. The pressure was coming up too fast for him, but that meant nothing. Sixty pounds, 70 pounds. He started to bleed from the mouth, but still he let the air roar through. He must get the pressure up on Tom, recompress the bubbles in his blood before they stopped his heart forever. Eighty pounds, 90 pounds,—he staggered, clinging drunkenly to the valve while the needle on the gauge danced unsteadily before his eyes. One hundred pounds. Enough! He closed the valve. The chamber, oppressively hot from the sudden rush of air, became suddenly quiet.

Clinging to the side of the tank, Carroll reeled to the inner chamber. Tom lay there, his legs doubled up, the muscles over his abdomen twisted into knots, his body covered with masses of purple blotches from the bursting of innumerable small blood vessels beneath his skin. A bad case of "the bends."

Slowly the pressure took effect. Under pressure again, the air which had frothed out in Tom's veins, gradually redissolved, Tom's circulation grew a little more regular, his convulsed body relaxed. But in spite of hours of working over him as they reduced the pres-

sure according to the diving tables, Tom was still unconscious; his irregular breathing and faint heart action threatened to stop at any moment.

At last the pressure in the chamber was down to atmosphere; what the "iron doctor" could do for Tom was done. It had given back his life; but medical care was necessary to hold the life in Tom's terribly strained body.

Carroll, weak from his wound, more weakened by his efforts to save Tom, rose from his side at last, crawled clumsily out through the door.

"If we're going to save Tom, we'll have to get him to a hospital quick," he mumbled to himself.

Once more the mooring lines, the splices hardly set taut, parted under the blows of the ax. The surfboat was swung aboard. Again the *Lapwing* turned her prow eastward and raced for Guayaquil.

The boilers were pushed to their utmost; the ship quivered and throbbed as she attempted to better her sixteen knot speed; the safety valves started to chatter as the steam rose to 200 pounds, the safety setting for the boilers.

Carroll watched the funnel belching smoke as the black gang forced the fires; watched the precious steam that might be speeding up the engine, blow uselessly into the air.

His jaws set grimly; he stepped to the voice tube, rang up the engine room.

"Hello, chief. Carroll speaking. Get a wrench and

screw down on all the boiler safety valves till they hold 250 pounds. And then keep the steam at that!"

A few minutes went by. The leaking of the steam abaft the stack ceased. The smoke grew thicker, long tongues of red flame shot from the funnel, the paint curled up and dropped away.

The stern of the *Lapwing* vibrated madly as the pistons in the engine pounded up and down under a pressure far beyond their design; the chief bled high pressure steam direct into the intermediate and low pressure cylinders; the revolutions of the shaft crawled up till the ship was making nineteen knots and shaking as if each second she would fly apart.

On the bridge, Carroll, haggard and worn, kept his eye on the revolution counter, watched the speed mount, wondered whether they would be in time.

Bob, from the wing of the bridge, pretending to watch the waves as they rushed by, kept a careful eye on Carroll's every movement, expecting him to collapse any minute. But the hours went by, and Carroll clung with his one good arm to the rail as the swaying ship plunged on; Fitz brought him coffee and toast; Bob helped him eat. The afternoon wore on.

A sudden thought occurred to Bob.

"Say, skipper, when will we get in?"

"At this speed, about ten tonight. Why?"

"Hadn't we better radio in to have an ambulance stand by?"

Lieutenant Carroll nodded, rang the wireless room.

The operator came, a little surprised. Not a message had left the *Lapwing* since she entered the Pacific. Carroll caught his expression.

"We'll have to break our silence. Take this:

"To American Consul, Guayaquil. S.S. *Lapwing* due Guayaquil ten P.M. tonight with badly injured American sailor stop please have ambulance alongside pier on arrival Signed Carroll, Master."

The operator went aft. Soon there drifted up on the bridge the crackling of the sending key as the dots and dashes flashed into the air.

"I wanted not to make port at all this cruise," said Carroll, "for fear whoever stole your book would jump the ship, but now with those two devils in the brig, we'll be all right. It'll be night when we get in, we'll get Tom to the hospital and see the consul is set to have him taken care of; then we'll get away before dawn so nobody'll ever get a chance to get inquisitive.

"And come to think of it, I guess we'd better load up on bunker oil while we're in. There'll be mighty little left in the tanks after this run." He looked at the flames leaping up the stack, scorching the mainmast astern of it. "The chief must be running rivers of oil into the boilers to make 'em do that!" He called the radio room again, and sent off a second wire, directing that an oil barge be brought alongside when they came in.

Slowly the hours passed with no change in Tom. His condition was precarious. The *Lapwing* pounded

on, rolling unsteadily as she forged eastward. Night fell; in the dim gleam of the binnacle, the helmsman, the captain, and Bob Porter stood faintly out from the surrounding gloom. Each bell, Carroll estimated the run from the engine log, pricked their position on the chart. Fitz brought up more coffee; it braced up the weary captain.

A light shot up over the horizon a little on the port bow. Bob took its bearing on the pelorus, Carroll plotted it, then studied its characteristics through his glasses.

"Mandinga Point Light. We're right on our course."

The *Lapwing* swept into the Gulf of Guayaquil, ran in south of Puna Island, swung to port, slowed while they picked up a pilot, and then headed north towards Guayaquil.

The pilot rang for "Two thirds speed."

In broken Spanish, Carroll explained to the pilot that they had an injured man aboard, and must make haste. His explanation finally was understood.

"Ah, si, si, yo comprendo." The pilot's face lighted up, he shoved the telegraph over to "Full Speed." They swept into the harbor, headed for the quay the pilot designated. Carroll took charge again.

The *Lapwing* ran swiftly up to the quay, backed "Full Speed," and with her wheel hard left, swung her starboard side into the quay. Two heaving lines whistled through the air, landed on the dock. Quickly the hawsers ran out, were tossed over the bollards on

the dock. The *Lapwing's* capstans heaved in; in another moment the ship was warped into her berth. The watch on deck ran out the gangplank.

Carroll left the bridge, hurried to the side.

A knot of loungers gathered on the wharf, watched curiously the ambulance which backed down to the gangplank. Two white-robed attendants drew out a stretcher and came aboard, followed by two men, one of whom was evidently an elderly doctor. The other, about Carroll's age, was an American.

Carroll saluted him. "The American Consul, I presume?"

"Yes, I'm Mr. Williamson, the consul here. Glad to meet you." He shook Carroll's hand, gazed in surprise at his naval uniform. "I thought this was a merchant ship, but it looks just like the mine-sweepers I've seen at Panama. And I see you're in the Navy. What's up?"

"It's a long story, Mr. Williamson, I'll explain later. Meanwhile we'd better get our man ashore." He turned to the physician. "Buenos noches, señor. Tenga la bondad de veniendo aqui?" and he led the way to the recompression tank.

In a few minutes, Tom, still unconscious, went over the side in the stretcher while his shipmates mournfully lined the rail and watched him disappear into the ambulance. The physician and the attendants scrambled in after; with clanging bell, the ambulance shot down the pier and vanished in the darkness. Lieu-

tenant Carroll and Mr. Williamson followed the ambulance in a cab.

A tug whistled off their port side; the boatswain's mate threw over the fenders there while a low oil barge slid alongside in the darkness and tied up. The oil hoses were run down to her and soon the steady throb of the pumps on the barge was forcing fuel aboard the *Lapwing*.

Bob looked with interest at the heavily loaded barge, her low sides barely visible through the night, and tried to engage its crew in conversation, but found they spoke so rapidly, his Spanish was not equal to the occasion. With some difficulty he learned that the fueling process would take three hours, then returned to the starboard side of the deck to look at Guayaquil.

He could see very little. Lights sparkled here and there over the water; in the distance he thought he could make out the vague outlines of a cathedral. "I guess I'm not seeing the world this cruise," he thought to himself. "I'll be able to name every tree and every rock on El Morro and that's about all."

Frank Martin paced the starboard side of the deck while Bill Clark, ashore at the foot of the gangplank, kept would-be visitors ashore. Porter watched the boatswain's mate arguing in spiggoty English with the natives who wanted to stroll over the ship, while Martin saw that no member of the crew either got ashore or spoke to those on the dock.

The loungers on the dock dispersed, the lights of the

city grew scarcer. Eight bells struck, the watch was relieved, but still Martin and Clark clung to their posts. Except those on duty, the crew of the *Lapwing*, their hopes of a liberty in Guayaquil abandoned, went below and turned in. Only the creaking of the pumps on the oil barge broke the silence on the quay.

Two bells struck. The oil barge finished pumping, the hoses were disconnected. Bob crossed the deck once more and watched the tug haul her away into the night.

Three bells came and went, four bells struck. A cab rolled down the pier, Lieutenant Carroll and Mr. Williamson disembarked. Bob went ashore and was introduced.

The consul reentered the cab. "I can well understand your reasons for secrecy, lieutenant. However, you can rest easy on that score. Except Dr. Estrada and myself, no one in Ecuador will know your mission. I'll have a draft drawn on Major Houghton for the oil you got, and I'll see that your patient has every care." The cab started up. He leaned out the window.

"Good-by and good luck!" he called as Carroll and Bob waved from the gangway. They went aboard.

The gangplank was hauled in, the lines cast off and when five bells struck, the *Lapwing* was standing out of the harbor. Tired as he was, Carroll stood by the pilot's side till they had steamed clear, dropped the pilot, and were again standing to the westward through the wide Gulf pointed for the open sea.

Not till then did he answer any questions about Tom.

But when the pilot was gone, and everything was safe, he described his vigil at Tom's side in the hospital. Dr. Estrada had administered strychnine to stimulate Tom's heart and keep him going till his strength returned a little.

"They think Tom'll come around all right. 'The bends' are gone; it'll take a few days for his heart to recuperate. They're watching to make sure no bubbles are left in his spine. Both his ear drums are broken; they'll heal again but he's going to be pretty deaf. I guess we can thank the 'iron doctor' for Tom's life; if we hadn't been able to jam him under pressure again, he wouldn't have lived five minutes."

Dawn broke, the coast was dropping below the horizon astern. Lieutenant Carroll, wan and pale, had been on his feet constantly for twenty-four hours, when at last he gave the final course to the quartermaster, and went aft to his cabin. Bob saw him safely into his bunk, helped him remove his clothes, and then, dead tired himself, descended to his own stateroom, threw himself into his berth, shoes and all, and immediately dropped off to sleep.

CHAPTER XXI

BOB DIVES AT LAST

To Bob, it seemed as if he had hardly closed his eyes when the door of his stateroom swung against his bunk with a crash. He sat up startled. Carroll, half-dressed, stood in the doorway.

"Pedro's gone!" he exclaimed. "So's Carley!" He let go the door, ran forward.

Porter leaped from his bunk to the deck and hurried after him. The captain, hampered by his bandaged arm, was climbing down the forecastle ladder in the narrow hold in the bow. Bob followed, careful not to step on Carroll's fingers as the latter clumsily went down, a rung at a time.

They reached the orlop deck. The iron door of the brig, still locked, was intact. Both Carroll and Porter pressed their faces against the steel grating on the door and peered into the narrow room beyond. It was empty.

Silently they looked at the solitary porthole. The steel bars, which on the outside of the vessel had covered the port, were broken and bent outboard.

"I see what's happened, I guess," said Bob, sadly. "That oil barge was tied up on this side. Pedro must have bribed her crew to twist the bars off with a crow-

bar, then he and Carley squeezed through the port, and hid inside the barge till she shoved off. The cat's out of the bag now, all right. What'll we do?"

Carroll left the empty brig and climbed heavily back on deck. The salt sea breeze swept over the forecastle, hit him as he dragged himself up the hatch, and revived him somewhat. Far ahead, the pinnacle of El Morro was rising over the rim of the sea.

The tired captain sat down on a chain stopper. At last he spoke, his white teeth standing out against his drawn and weatherbeaten face.

"You can dive now if you want to, Bob."

"What's that?" exclaimed Bob, hardly believing his ears.

Carroll repeated. Bob's face lighted up with a brilliant smile and an involuntary "Hurrah!" burst from his lips. He seized Carroll's hand, started to give it a vigorous shake, then quickly dropped it as he saw the captain's shoulders twitch with pain.

Lieutenant Carroll tried to smile at his friend's enthusiasm.

"Yes, Bob, I'll have to do it. There's only a few days left now before we can expect a Peruvian cruiser to come rolling up and make a prize of us. It'll take those deserters three days to get to Lima, maybe one day to spill their story to the government and another day for a fast cruiser to get up here from Callao. That's only five days; before that we'll have to be on our way; so far from El Morro and Peruvian territory

that they won't dare touch us on the high seas." He heaved a deep sigh.

"And that's where you dive, Bob. There's only two divers left, Clark and Martin. They'll never get the gold up in that time; you can help. If Pedro hadn't ripped me up, I'd go down too. Blast his hide, why did I ever think I needed an interpreter!"

By the early afternoon, they had arrived, the surf-boat already swinging from the boom, the boat's crew in it, a new hawser dangling over its stern, and the motor slowly turning over. Hardly had the *Lapwing's* engine stopped, reversed, and brought the ship to rest in a wide swirl of foaming water near the eastward buoy, than the boat dropped into the sea and ran out towards the mooring, the long hawser trailing astern like a sea serpent. Quickly the other three new moorings were secured as the boat shuttled back and forth. The ship was centered and the buoyed off descending line picked up. Frank Martin, already fully dressed, had his helmet clapped on, seized the canvas bag and was dropped over the side.

Carroll held the watch. The minutes seemed to fly as Martin toiled below. Only sixty minutes altogether on the bottom at a depth of thirty fathoms,—did he dare to stretch it? Carroll shook his head; even that brief time was far over the tabular stay for such a depth. Well, they would do the best they could.

Frank's time was half gone; the captain motioned

Bob to get dressed; he would keep Bill Clark for last in case Bob got in trouble on the bottom.

Bob Porter ran to his room, stripped off his clothes, pulled on a light woolen union suit. He came back to the dressing bench, hardly able to conceal his joy.

He lifted his legs, shoved them through the heavy rubber neck piece of the stiff diving suit. The dressers worked his feet down the legs part way; then seized the suit by the waist and lifted Bob clean off the bench. His legs slid down the rubber-lined suit, his feet felt the deck beneath. Again he sat down.

Bill Clark, who was bossing the job, lathered both Bob's hands and wrists with soap; Bob shoved his arms inside the suit, down the sleeves. His fingers came to the tight rubber cuffs but would not slide through. A dresser gripped each sleeve at the elbow, pulled vigorously, at last managed to work the cuffs over Bob's soapy hands.

The boatswain's mate brought out a pair of wide elastic bands,—he slipped one over each of Bob's hands, fitted them over the rubber cuffs where they gripped Bob's wrists snugly to make the joint stay watertight.

A copper breastplate was slid over his head, bolted tightly to the rubber neckpiece of his suit. He stood up; a heavy lead-weighted belt was buckled on; a leather harness from the belt passed up over his breastplate and down between his legs to hold the belt up

and the breastplate down. The dressers pulled taut on the straps to make sure his rig stayed in place. Bob thrust his feet into the clumsy leaden shoes; the dressers laced them on with short lengths of signal halyard.

His weights became oppressive, his shoulders started to ache under the load, but still more gear was added by the dressers. Clark slipped the telephone headdress on, adjusted the receivers over each ear, tightened the cotton strap under his chin. Bob twisted his head to make certain it could not slip down over his eyes. His helmet was held close in front of him, the cord from the receivers temporarily plugged into it, and he tested his telephone set. His telephone man was perched in the superstructure, Bob leaned forward over his helmet and spoke into the transmitter inside it, "Hear me?"

In the rubber-cushioned receivers on his head he heard, "Aye, aye, Mr. Porter. Can you hear me?"

"O.K?" asked Clark. Bob nodded. The boatswain's mate unplugged his receivers, set the helmet down on the deck near by.

Bob twisted his neck around inside his breastplate and watched the rail. Martin's time was up, he was out of the wreck and had just signalled to hoist away. The after capstan was heaving in.

The canvas bag appeared alongside, rose to the outside of the bitts as the capstan stopped. A seaman took several hitches round the neck of the bag with

the whip from the boom and the boom hoisted the bag over the rail while the capstan slacked off.

Clark cast off the lines, opened the bag. One by one, the watch on deck staggered forward under the weight of a heavy ingot. Bob counted them as they came from the dripping bag,—eighteen bars.

But while this went on, the captain's attention was riveted not on the gold but over the side where back and forth the signals traveled to the diver below as they hauled in his slack to pull him out of the tunnel, and then started him off the bottom. Overboard went the stage and down to a hundred and twenty feet where Frank Martin clambered on it and started his decompression. Martin was safely off the wreck.

Not till then did Carroll turn to the deck where Bob sat.

"All ready, Bill?" he asked. Clark nodded, lifted up the helmet, plugged in Bob's receivers.

Lieutenant Carroll left the rail, stepped to Bob's side as the helmet rose, poised over his head. He patted Bob affectionately on the back, smiled at him.

"Good luck, old man. Just keep cool, whatever happens."

Down came the helmet over Bob's head, the noises of the deck were shut out. A sharp twist and the screw joint between breastplate and helmet was locked fast.

Bob felt suddenly confined, the air seemed stuffy. He fumbled with his left hand for the control valve, opened it. A gust of air swept through his helmet, and

swelled out his suit. He felt blindly for his diving knife, found it at the left side of his belt. He was ready.

Bob tried to rise, but sagged under the heavy weights he carried. A tender on each side lifted him erect, assisted him to stagger aboard a lifting stage. He clung to the bails to hold himself erect. Through the faceplates he could see the sailors watching him. They seemed far away, detached.

Faintly he heard the call:

"Up stage!"

The platform under his feet lurched, he rose high above the deck, felt himself swinging outboard. A pause, then the stage started slowly down.

The water rose over his feet, covered his breast. His canvas suit suddenly shrank in on him. His eyes looked out along the surface of the sea, then his helmet submerged and he heard air gurgling from his helmet into the water. The load of his diving rig suddenly vanished as his buoyant helmet floated off his shoulders and tugged against the harness holding it to his belt.

The stage stopped. Over him he could see the surface of the ocean, sparkling in the sunlight like a silvery sheet undulating to the wind. He tested out his exhaust valve, tried his control valve, adjusted his buoyancy till his suit swelled away slightly from his chest so he could breathe.

A jerk on his breastplate where his lifeline was made fast. He seized it, jerked it once, "All right."

The canvas bag, rolled in a small wad, broke through the surface above and hung in front of him. He gripped the lanyard on it with one hand, wrapped several turns about his wrist.

A strain came on his lifeline. He felt himself lifted from the steel stage. He let go the bail, and stepped off onto nothing. Only the deep sea beneath him now.

The tenders dragged him forward, he scraped along the red hull of the *Lapwing*, dangling by his lifeline. A few feet more and he made out the manila descending line in front of him. He seized it, wrapped both legs around the line, clung to it with both hands.

A far away sound in his ears; he recognized Carroll's voice asking:

"All right, Bob?"

Through the roar of his air, Bob shouted, "All right! Lower away!"

Bob's lifeline slacked. He eased his grip on the descending line, let it slide freely through his hands and started down.

The surface quickly disappeared, the light grew dimmer. Swiftly he sank through the water which rapidly changed from blue to gray with a dull light seeming to come from nowhere. His ear drums stretched, started to press in painfully. He gripped the line again, stopped his descent. He must be going too fast, his ears were not equalizing. He pressed his nose against his faceplate, swallowed several times as Joe Hawkins had taught him. His ear drums snapped

back to normal, the strain passed off. He slacked his grip and sank once more, going a little more slowly.

The water grew dimmer and dimmer; except for the air rushing through his helmet he seemed to be in utter silence as he sank into the depths. The pressure increased, the air felt a little light. Still no bottom. It seemed as if he had been dropping for hours. He bent his head, looked downward as he slid, but except for the stout manila line curving away in a wide bight from between his legs he saw nothing but a mass of water in which distance seemed to fade out as in a fog.

Bob paused again, swallowed hastily to clear his straining ears, then continued his descent. The line started to slope away more sharply below him, the water below appeared suddenly to grow much darker, and then gradually there materialized against a dark background the massive poop of the ancient wreck.

Bob sank a few feet lower till it stood out more clearly, then clung to the descending line as he drank in the scene,—the broken mast, the richly carved ports, the shattered sides where Drake's shot had crashed through. Bob thrilled at the sight,—truly he was in another world, and there, spread out before him in the unearthly quiet and the weird light of the ocean floor, lay the *Santa Cruz!*

Bob gazed entranced upon a sight which few men have ever been privileged to see; then suddenly started down again as he remembered his mission. He slid down past the hull into the semi-darkness alongside the

poop. His feet touched bottom, he let go the descending line, he was down at last!

He took one step along the ocean floor, then staggered dizzily and leaned against the hulk for support. His head swam, his chest labored as he tried to breathe. The water seemed to be pressing on him with an overwhelming weight. For a moment, Bob felt about to collapse, wondered what was wrong. His confused brain struggled to remember his instructions. What was it Joe had once told him? Oh, yes, most new divers never take enough air!

He gripped his control valve, opened it wider. His suit inflated a little more; a crushing load seemed to rise from his chest as his lungs no longer had to push away the encircling water at each breath. His head cleared somewhat, he steadied himself, and again started for the tunnel. He could see the light gleaming where Frank had left it on the ocean bed.

He reached the tunnel, looked into the dark hole. His heart quailed at the idea of burying himself in that mud-filled trench, but he gritted his teeth, lifted the lamp, and slid down the line into the shaft. Everything went black, he imagined himself sliding into eternity. His feet bottomed in soft mud, he sank nearly to his knees. With one arm, he groped round in the darkness, felt the opening torn through the bulkhead. He dragged his feet out of the mud, crawled into the passage. He rested a brief time, marvelling that the divers had ever had the courage to burrow

through that clay. Inside the passage, he could barely see the light. Dragging it after him, he started for the strongroom.

Forty minutes later, with sixteen bars of gold inside his bag, he dragged his panting body once more to the tunnel, signalled to hoist the bag, then had himself hauled up through the mud. Slowly he breasted his way through the water to the descending line, signalled for a rise.

Grimly elated over his success, Bob watched the *Santa Cruz* dissolve into the water as he slid up the line.

His ascent stopped, he heard a voice in his ears:

"Look out for the stage!"

Bob looked through the top port in his helmet. A few feet over him the stage swung, shackled to the descending line.

"Take me a little more!" he called.

His lifeline came taut again, he was pulled up till his fingers gripped the stage. "That's well!" he shouted. The tenders stopped hauling, he crawled aboard the little stage, unshackled the descending line, watched it swing quietly away through the water and sat down wearily to rest.

Another call from the topside. He shut off his air. Carroll's voice:

"Hello, Bob! Start your exercises!"

Bob turned on his air again, crawled painfully to his feet and commenced. He must accelerate his circu-

lation while he rose to insure decompression. He started to do knee bends, body rolls, arms in circle. Keeping his balance on the little platform was difficult, but he stuck earnestly to his work.

Another call from the topside. "Up twenty feet!" The stage lurched, he clung to the bails as the water streamed downward. The stage came to rest again. He would have to pause awhile at a hundred feet.

Again he started to exercise. The humor of it struck him. A comical figure he must be in a diving rig doing calisthenics far down in the ocean. He laughed at the thought. His voice sounded queer,—he hadn't noticed that before. He pursed up his lips and tried to whistle. No use,—his lungs could not make the heavy air rush out fast enough to make the slightest sound. He laughed again,—how strange his voice sounded!

Another call, another twenty foot rise. Again he exercised, then started to talk to himself to relieve the monotony. He looked round. The quiet water, gray in the dim light filtering down from above, gave him a strange feeling of detachment from the world, its worries, and its troubles. In the bosom of the sea, all was peaceful, man and his struggles far removed. Only the descending line, swaying gently through the water twenty feet away, reminded him of the surface.

Bob exercised again, tried to cast off the unearthly spell of the deep. He was fascinated by the manila line, floating detached in the water, seemingly coming from nowhere below, fading into nothing above. He

watched it as it rose and fell with the motion of the ship on the surface.

The line swayed more strongly. Bob looked up. He thrilled to see another diver dropping rapidly through the water. Much magnified as Bob saw him through his faceplate, he seemed a ten foot giant as he shot downward past Bob, an ever-widening cone of bubbles streaming through the water from his helmet like the tail of a skyrocket. He disappeared below. Bill Clark was making the last dive of the day.

Slowly, stage by stage, Bob rose through all the steps in the decompression table till he could see the red hull of the *Lapwing* in the water above, and the mirror-like surface of the sea gleamed over him. At last came the welcome word, "Coming aboard!"

He gripped the bails, the stage rose, he burst through the surface. His suit suddenly became immensely heavy and he clung tightly to the stage as it was lifted above the rail and swayed drunkenly inboard. Down came the platform on deck, a bench was shoved in behind his knees, he felt a pair of hands on his shoulders pressing him down. He sat down thankfully.

Someone seized his shoulders, other hands gripped his helmet. He felt a sharp twist, the joint came loose, and his helmet was carefully lifted off.

Bob threw his head back and drank in the brilliance of the sunlight, the freshness of the open air. He was up!

Carroll pushed through the crowd of dressers,

gripped his dripping hand, squeezed it enthusiastically.

"Great work, Bob! And Joe Hawkins just sent up word from his bunk he's proud of you. He said he's quit worrying about his broken leg now he's got you to take his turn!"

CHAPTER XXII

THE DESERTERS RETURN

For two more days the work went feverishly on. About half the gold was brought aboard. In the same order, Frank, Bob, and Bill went down. Accustomed to the work, each time they did a little better. On one side of the strongroom, they were down to the bare deck; on the other side, they had removed enough bars to expose one end of a heavy iron chest.

"We got two days more to try and then we'll have to clear out," said Carroll after Bob had come up from his third dive. "No matter how much is left, we can't risk staying any longer."

"Too bad it's such a tortuous path to the treasure room," mused Bob. If only the *Lapwing* could get a straight pull up, we could lift it all in a couple of dives."

"Yes, I've thought of that too, but there's nothing in it. If we try heaving, the line has to go round so many corners, including the sharp edge of that hole in the iron, that it'd be sure to saw in half and we'd only lose time. It'll have to keep on as a mule-hauling job for you divers."

Bob felt an inward thrill at the unconcerned way in which Carroll spoke of "you divers"; the adventure

was more glorious than he had ever dreamed. Trying to look casual, however, he said:

"We've got to get a look into that chest, even if it means leaving some of the ingots. There must be something special there."

Carroll agreed with him, and after discussing it further with the other two divers, it was decided that for the next day Frank should remove and send up the gold over the chest; what time he had left, he was to put in burning away the locks and, if necessary, the hinges; Bob, following him, was to finish the burning job if required and pry open the lid. What he and Bill, who would follow him, should do would depend on what they saw inside the chest.

The afternoon dragged along. The two divers,—boatswain's mate and chief torpedoman, lay in their bunks below, resting from the strain of their hour on the bottom. Bob, who more than ever they felt one of them, stretched out in Tom Williams' empty berth and regaled Joe Hawkins with his descriptions of the strongroom and its contents.

Joe, his bandaged leg stretched stiffly out on his mattress, looked dolefully at the pair of crutches which the carpenter had made for him.

"The skipper says in a week I'll be allowed on deck on them things. And here you 'n Frank 'n Bill are just revellin' in pigs of gold while I got to stay up here on my back and swear. Just think, you gobs,—I'll never see the inside of that strongroom. 'N that after

all I done to break the path through. Even poor Tom got a look before he got his." He sighed. "I'll be the only one. 'N ever since I been diving, I dreamed about the time I'd have a chance to swim around in some treasure ship and sort o' kick the gold around careless like with my lead shoes. Now there's the gold 'n here 'm I, and I can't even kick a coil o' rope. It's enough to make a diver cry." He groaned miserably.

Bill tried to cheer him up.

"Never mind, Joe. It ain't nuthin' to worry over. There's so much gold down there, you get sick lookin' at it."

Bob laughed. Frank turned angrily on the brawny boatswain's mate.

"A slick little consoler you are, Bill. What ails you, anyway; do you think that'll make Joe feel better? I always thought boatswain's mates wuz thick; now I know it!"

Bill's face grew red. He looked meaningly at Frank.

"Well, I guess nobody's ever been able to decide which wuz more unreliable,—torpedomen or their torpedoes."

"Aw, belay the fightin'," counseled Joe. "I'll be content with goin' down in our own hold when we get headed north and I'm up again, and gettin' an eyeful of those ingots there. It'll never be the same, but it'll do. Say, shipmates, how many bars are there, anyway?"

When night fell, that question was still being vigorously argued.

Morning came with a light breeze and an easy roll. Martin went over the side, taking the torch with him, and sent up thirteen ingots. He reported that he had the top of the chest clear and one lock off when his time expired and Carroll ordered him up. He left the torch below.

There was a long delay before Bob went over. His telephone set failed to work on the test just before his helmet went on. After considerable time lost in testing the cable inside the lifeline, the batteries, the ship end of the circuit, and the instruments, it finally turned out that the transmitter inside the helmet had developed a ground. As the transmitter was soldered into the helmet, it meant using a new helmet and since helmets and breastplates went in matched sets, the dressers had to unbolt the breastplate secured to Bob's suit and put another in its place before they could proceed. As a result, Frank Martin finished his decompression and was aboard by the time Bob was finally ready to go over.

Again Bob tested his equipment and found it satisfactory the second time. A short crowbar was lashed to his belt, he took a canvas bag, and was hoisted out. He noticed a slight pain in his ears as, near the surface, the waves passed over him and varied the pressure rapidly. As quickly as possible he slid down where the wave pressure was no longer felt.

Bob reached bottom, crawled down the ever-forbidding tunnel, worked his way into the passage with his equipment, and saw the torch and the light still hanging in the opening to the strongroom. He slid down a line inside, and with the lamp in front of him, pushed through the water to the spot where the black top of an iron chest protruded through a heap of yellow bars.

Bob examined the chest carefully. Two heavy hasps, each secured by a massive iron lock, had held down the lid. One hasp had been burned through by Martin, the other, still partly covered, was intact. Bob set his lamp carefully on the deck, and heaved aside the ingots in his way. Soon it was clear.

Bob picked up the torch, and as he had been trained, turned on the gases and lighted it off. The banging of the flame startled him at first, but he quickly steadied down and swung the torch to the hasp. He lost a little time in getting preheat enough to make the metal glow, and had to readjust the flame several times before he got the proper mixture in the flame, but when he had it, he was surprised at the speed with which the iron, in spite of the surrounding water, grew red hot and flashed away in a brilliant stream of sparks when the trigger was pressed. A few seconds and the hasp was burned in half. He extinguished the torch.

Bob felt for the crowbar tied to his belt, gripped it, and cut away the marline holding it. A little clumsily, the diver inserted the wedge point of the bar into the

point between chest and lid, and pried up. The cover held fast. Evidently the iron had, as a result of its long submersion, practically rusted solid. Bob worked his bar up and down along the joint, gradually sprung it a little, and by fractions of an inch pried up the lid till he could get the full bar entered across one of the corners when he braced his shoulder under the bar and prepared to burst the cover open.

On the surface, Lieutenant Carroll, as usual, listened on the diving telephone. He heard Bob's labored breathing as he struggled with the cover, wondered what the chest enclosed.

"Captain!"

He looked up hastily. On the bridge the quartermaster was pointing excitedly.

Carroll turned the telephone over to a tender, ran forward and climbed the ladder to the bridge. Off on the eastern horizon, a thick cloud of smoke was plainly visible; through a telescope he could make out the hull of a steamer already no more than ten miles off. He studied it a moment; with a bone in her teeth, the ship was heading directly for them.

Carroll dropped his glass discouraged.

"So they worked a lot faster than I thought they could," he muttered under his breath. "Well, it'll be up to the sea lawyers now. Tough, just when we'd done all the hard work."

He walked to the rail. Aft the tenders "fished" Bob's lifeline. He shook his head. "Might as well

leave the rest down there," he thought. Aloud he called:

"How long's Mr. Porter been down?"

The timekeeper looked at his watch.

"Only twenty minutes, sir."

"Never mind," ordered Carroll, "bring him up right away!"

He picked up his telescope again, scanned the fast-approaching ship. Peru had only a few cruisers,—which would it be? The *Esmeralda* most likely; she was their fastest.

The strange ship was only a few miles off now, but bows on, it was difficult to make her out. Even over her bow though she looked queer. No cruiser he ever knew had such a low bridge.

A question flashed through his mind. Odd it hadn't occurred to him before, he thought. Was she a cruiser after all?

"Boatswain's mate!"

Bill Clark ran forward, looked up for the word.

"Pipe all hands! Tell Frank Martin to send up those cases of rifles, all the pistols we've got, and break out that machine gun! On the double!"

The shrill pipe and Clark's hoarse calls rang below decks. In a trice, practically the whole crew was on deck, madly tearing away the covers to the after hold. A mile away the stranger came on; on the *Lapwing* rifles, Colt automatics, ammunition, poured up from below, were feverishly served out to the crew. The

Browning machine gun,—barrel, tripod, belt,—was heaved up on deck, dragged to the forecastle. Methodically Frank Martin assembled the gun, loaded the belt, masked the gun behind the anchor engine, and crouched behind it.

The strange ship swept on. Lieutenant Carroll scanned it for the last time; it was certainly not a warship. He heaved a sigh of relief,—no one else could molest them.

The *Lapwing* lay port side to the intruder; Bob's lifelines led down that side into the water, as far below he clung to the descending line. They had not lowered the stage for him. Carroll surveyed the scene rapidly.

"Tenders there!" he shouted. "Take Porter's lifelines around the stern to the starboard side and tend him from behind the deck house! And watch you decompress him right!"

The tenders waved acknowledgment, slacked the line out together with the hoses to the torch which Bob was bringing up, dipped them under the stern and ran the lines forward up the starboard passage, out of sight of the approaching ship. Only the descending line now rose over the port side.

Carroll looked aft. His port side passage was lined with armed men.

"Below there!" he ordered, "all hands down below the bulwarks. Clark, send half a dozen men into the superstructure! Let 'em take cover behind the motorboat!"

Six men swarmed up the ladder, flattened out behind the gunwales of the heavy boat.

In silence Carroll watched the fast-approaching steamer. Thirty rifles gleamed over his side, waiting. With his one good arm, he fingered the Colt strapped to his left leg. The other ship was only four hundred yards off, a little on their quarter, heading to pass just inside their port quarter mooring buoy. She was closer now, he read the name on her bow,—*El Fuego*.

Carroll seized his megaphone; with difficulty his one arm held it to his lips.

"*El Fuego* there! Keep off or we'll fire!"

No answer. He dropped the megaphone.

"Quartermaster, break out the colors!"

A little ball of bunting ran up to the masthead. The quartermaster jerked the halliards, the ball burst, and Old Glory floated defiantly above the *Lapwing*.

As if in answer, a man sprang to the stern of the other ship, hoisted away on a line to a gaff on their mainmast. A dirty white sheet fluttered from her superstructure, rose slowly to the gaff. Carroll trained his glasses aft, looked at the figure manning the halliards.

His jaws snapped firmly. As he thought. Tom Carley. He dropped the glasses, watched the strange flag flapping upward.

In black paint against the white background, a crude skull and a pair of crossed bones stood starkly out. The *Jolly Roger* floated once more over the Spanish

Main! As it reached the gaff, a hoarse cheer rose from the pirate ship, rolled across the water to the silent *Lapwing*.

Looking down from his bridge over the low deck of the steamer, Carroll saw a swarm of men, at least a hundred, crowding her rail, bunched on her poop. Knives flashed, pistols were brandished aloft. He examined them through his binoculars,—a swarthy crew of varied colors,—the scum and riffraff of all nations. White, black, yellow, red,—negroes, Chinamen, Indians, half-breeds,—leaned over *El Fuego's* sides, flashed their weapons, and hurled a chorus of yells and oaths across the rapidly shrinking bit of sea between the ships.

Carroll was far outnumbered. If that mob ever boarded the *Lapwing*, his little crew would be overwhelmed. He dared not wait longer.

On the off side of the bridge, he leaned over the weather cloth and called to the little group on his forecastle hiding behind the anchor engine.

"Frank! Cut loose on their bridge!"

The barrel of the machine gun swung aft, Martin squinted along the sights, depressed his breech a little. He squeezed the trigger.

A sharp rattle broke the stillness on the *Lapwing*. A stream of fire spurted from the black muzzle. A hundred yards off splinters started to fly from the wood sides of *El Fuego's* pilot house; in a few seconds it was riddled with holes. Martin, crouching behind his

gun, saw the helmsman let go the wheel, drop in a heap. The ship suddenly swung away from her course, started to sheer off. An officer leaped for her telegraph, signalled the engine to stop. Grimly Martin sprayed his stream of flying steel across her bridge. The man at the telegraph clutched his side, staggered, and fell. Martin ceased firing. The enemy ship stopped, began drifting slowly toward them.

The black muzzle of an old field gun was shoved over the pirate's rail. Looking down, Carroll saw the gun crew rapidly slewing their piece forward. He heard the breech slam.

Lieutenant Carroll leaped for his rail.

"Frank! Rake their forecastle!"

The chief torpedoman pivoted the Browning, depressed a little, and swung toward the cannon aimed at him.

A flash and a roar from *El Fuego*. Carroll flung himself to the deck. A shell screamed across the water, tore through the bridge screens on the *Lapwing*, threw up a huge column of spray as it burst in the sea beyond.

The drumming of the machine gun started again. Carroll, peering through the hole torn in his bridge, watched the bullets spatter against the steel bulwark of the pirate, ricochet harmlessly into the water. His machine gun was mounted too low to fire down behind the pirate's rail. Carroll crawled to the after side of

his bridge, shouted to the men in the superstructure crouching behind the motorboat:

"Rapid fire on that field gun crew!"

The crackling of rifles answered his cry, but unfortunately his men were merchant seamen, not marksmen; their fire at long range was inaccurate.

A blinding flash from the field gun, another shell whistled toward them, burst with a terrific crash on the forecastle. Splinters flew in all directions, Carroll saw his forward bridge screens torn to shreds as bits of steel hurtled over his prostrate form. He looked down at the ruin on his forecastle,—the anchor engine, torn from its bed, lay across the dismounted machine gun. Frank Martin, his head covered with blood, was lying against the lee rail; a seaman, nearly blown apart by the explosion, hung limply over the wildcat.

Carroll groaned. His best defence was gone. He watched the ineffective fire from his superstructure, saw the gun crew behind the rail fifty yards off working madly to reload their ancient field piece. Unless he could silence that gun, the *Lapwing* was gone. He pulled himself to the edge of the bridge, peered down on deck. In the line of sailors stretched out behind his port rail firing across it, he saw his boatswain's mate.

"Clark!" he shouted.

Bill Clark looked up, saw his captain beckoning. He clutched his rifle, slipped forward, keeping down low, till he lay just below the bridge.

"Bill," said Carroll rapidly, "that field gun'll clean us up in a few more rounds. These lubbers up here can't hit anything, and the crowd below is too low down to make their fire effective. Get up in the crow's nest and see that that gun is silenced!"

Clark nodded. He reached into an ammunition box behind the rail, jammed his pockets full of cartridge clips. Keeping low, he ran through the messroom to the starboard side, caught a brief glimpse of Bob's tender struggling to haul him up a few feet. Clark slung his rifle across his back, climbed up the superstructure, sprang for the Jacob's ladder, scrambled up the mast. As his figure showed clear against the sky, bullets started to shriek past him. He clung to the swaying ladder, looked to port, saw the muzzle of the field gun training on the mast. A flash. A shell screamed by the mast, the ladder swayed violently. Clark gritted his teeth as he swarmed up. "That's your last shot!" he breathed grimly.

He pushed through the trap in the bottom of the crow's nest, unslung his rifle, shoved it out over the top of the little metal wind screen. He glanced down with fierce satisfaction. From his lofty station he commanded a clear view of *El Fuego's* forecastle only fifty yards off. He looked down on the heads and shoulders of the struggling gun crew. A shell slid home, the gun captain started to close the breech.

The boatswain's mate leaned against his rifle, carefully sighted downward. A crack, the gun captain

below crumpled over the trail of his gun, the breech plug swung wide open. The swarthy pirates at the gun dragged him clear; one of them shook his fist aloft, sprang for the plug. Again Clark fired; the bullet ripped downward through the pirate's chest, tore him wide open. Blood spurted over the deck as he dropped across the swinging plug, hung there a moment, then fell backward against the gun carriage and lay with sightless eyes staring skyward.

A hail of bullets swept by the crow's nest, ricocheted from the round sides of the little steel cylinder.

"Lucky for me the Navy built this tub," thought Clark. "If this was a regular canvas crow's nest, I'd be a sieve!"

He kept his head low, reloaded his rifle. The terrified gun's crew started to seek cover. He drew a bead on one of the fleeing pirates, caught a gleam below, held his fire. Alongside the gun lay a box of three inch cartridges, the brass powder cases flashing in the sunlight. Clark swung his muzzle over, opened fire on the ammunition box.

There was a loud roar below, flames burst out, a column of smoke higher than the crow's nest shot up, enveloped the enemy's forecastle. When the smoke drifted clear, Clark heard a roar of triumph from the *Lapwing's* crew. He peered down. The field gun had blown overboard, *El Fuego's* forecastle deck was torn apart. Scattered over it lay the motionless forms of the gun crew, their clothes still smouldering.

The boatswain's mate watched the swarm of pirates excitedly scrambling for shelter on the stern of *El Fuego*. He patted his rifle affectionately.

"Only three shots, old girl," he muttered. "I'll bet none o' them gyrene sharpshooters ever done better!"

The echoes of the explosion died away, silence reigned a moment on both ships. With her stern only a hundred feet away, *El Fuego* drifted aimlessly, her bridge deserted, her crew out of sight behind her deck house or lying close against her bulwarks. Firing ceased on both sides.

A bullet whizzed by Clark's head, buried itself in the mast alongside. He ducked in surprise, looked at the hole. A second bullet skimmed across the crow's nest, ricocheted from the steel inside, hit him behind the left shoulder and staggered him as if a sledge hammer had struck. Clark peered cautiously up over the windscreen. Those shots were coming from aloft!

Carefully he watched the masts of the pirate vessel. A puff of smoke, another bullet whistled past his head. Behind the maintopmast, just above the crosstrees, he could see part of the wide trousers of a sailor flapping in the wind.

Slowly Bill Clark shoved his rifle over the rim of the crow's nest, swung it aft. He raised his head till his eyes just showed above his shelter, and waited. In a moment, he saw a rifle swing out from behind *El Fuego's* mast, rise gradually. Part of a sailor's shoulder came into view, then his head, as the rifle levelled

off towards the crow's nest, waiting for its target to show.

The boatswain's mate drew his knife, placed his white hat on the blade, and slowly raised it above the edge of the crow's nest. There came the crackle of a rifle, his hat went flying off the knife blade. Like a flash, Clark rose, clapped his rifle to his shoulder. His enemy, triumphant at his success, stood out clearly on the crosstrees. Tom Carley!

Clark pressed the trigger.

Carley staggered, clutched at the rigging, missed it. His rifle clattered down on deck as he lost his footing, toppled from the mast and went spinning down a hundred feet into the sea, his arms wildly clawing the air as he fell. He struck with a tremendous splash, vanished in the waves.

On the bridge, Carroll, who had taken shelter behind the mast, breathed a little more freely. The pirates would have to fight it out with small arms; as long as Bill Clark kept them off their bridge, they would not be able to maneuver alongside and board.

But his relief was short-lived. The water started to foam up astern *El Fuego;* slowly her counter backed down on the *Lapwing*. The pirates were operating their rudder from aft, going astern with their engine, and preparing to board!

Silently Carroll cursed the loss of his machine gun. That villainous mob would never get across his rail if only Martin and the Browning were still in action!

El Fuego drew closer to their fantail. Hastily Carroll withdrew his men further forward behind the deckhouse, into the superstructure, up the port passageway. In a hand to hand fight his crew would be no match for the knives of that mob of cutthroats; he must keep at longer range where his firearms would count.

For a second as the towering stern of the pirate loomed over his low rail, there flashed through his mind a thought of Bob Porter still dangling in the ocean, decompressing. His plight would be serious if the fight raged up the starboard side and Bob's tender had to flee. He drove the fear from his mind; if they lost, it would be the same death for all. The pirates would leave no witnesses.

A grappling hook shot from *El Fuego's* rail, caught the *Lapwing,* stretched taut as it was heaved in by invisible hands above. A seaman leaped from behind the *Lapwing's* rail, flashed a knife against the hemp. The line parted. He jumped back hurriedly. A volley of shots poured from the pirate ship. The sailor crumpled up, blood oozing from a dozen wounds.

More hooks flew out, gripped their rail, the grappling lines hauled taut. The little strip of water between the two ships vanished.

With a wild yell, an avalanche of pirates suddenly swept over *El Fuego's* counter, poured down on the *Lapwing's* fantail. Carroll, looking over one of the huge manila coils with which he had blocked off both passageways and behind which his deck force lay,

Knives flashed, pistols roared

gazed upward an instant at the brutal faces, the snarling teeth, the bloodthirsty eyes of the pack of human tigers leaping down. There would be no mercy.

He raised his Colt.

"Rapid fire!"

From behind his manila bulwarks, from the portholes in the deck house, from the motorboat in the superstructure, the crackling of rifles and the barking of automatics cut through the fierce chorus of yells on his stern. A wave of yelling fiends rushed up the deck; many dropped under the hail of bullets which swept the fantail but those behind leaped over their dying comrades, covered the few feet to the deckhouse, and in a trice were struggling to break across the heaps of rope, to scale the superstructure.

Knives flashed, pistols roared. There was no room to aim rifles; instead the heavy butts swung wildly round as clubs as the fight raged hand to hand. The crash of broken heads, the sickening thud as knives drove home, the wild cries of wounded pirates as they were flung from the superstructure, rang over the gently heaving sea.

Meanwhile Bob Porter, now only fifty feet down, was puzzled over the lack of the stage. Why were they letting him hang on his lifeline, with nothing but the descending line to cling to and no way of exercising to decompress?

He had heard nothing from above; the tender hanging to his line while the ships fought and he heard the

crash of battle on the other side, saw no reason to alarm Bob by telling him what was going on. But now they were boarded. Abaft him he saw his shipmates crouching behind the hawsers firing madly. If the attackers cleared the breastworks and rushed up the deck, he would be quickly done for and so would Bob. Decompressed or not, he must bring his diver up before it was too late.

He jerked "One" on Bob's line, lifted the telephone transmitter. He heard Bob turn off his air.

"Mr. Porter, we're fightin' on deck with a bunch o' pirates! I gotta bring you up. Stand by!"

Over his telephone, Bob caught faintly a part of the wild din above. He sensed the situation. So Pedro had turned pirate, hadn't bothered with the Peruvians! He wondered how his shipmates were faring.

His lifeline strained, he lightened himself so the solitary tender could lift him. He went up the descending line foot by foot, then noticed that his lifeline was leading at a sharper and sharper angle away from the descending line, tending to tear it away from him. He looked out through the top of his helmet. He made out the familiar hull of the *Lapwing* overhead, his lifeline leading towards one side of it while the descending line led upward to the other side. And there alongside the *Lapwing*, he saw the deep stern and the propeller of a strange vessel. He clung to the descending line, scanned it closely. The descending line led up between the two hulls.

He gazed at the strange hull overhead. So Pedro and Carley had come back to rob them of their hard won treasure! He clenched his teeth. He'd show them!

His lifeline came taut, the descending line started to swing under the *Lapwing's* keel to starboard as his tender heaved in. Bob clung tightly to the line, shut off his air.

"On deck. Vast heaving! Give me some slack!"

The tender, astounded at the request, kept trying to heave in, but Bob jerked his line viciously three times to emphasize the message. The sailor quit hauling, slacked out slowly.

The descending line swung back until it hung vertically between the two ships. Laboriously Bob, who did not dare to get too light, dragged himself up the descending line until he clung just under the bilge of the strange ship, while the *Lapwing's* hull glimmered darkly through the water a few feet farther up. Occasionally a flash of sunlight brightened the sea as the ships rolled apart, then faded out as they touched again.

Bob dragged himself up another fathom, touched the side of the pirate vessel. Steel. Fine! Tough luck if it had been wood, he thought.

He wound his legs tightly around the descending line, twisted a turn around his foot to help hang on. He dragged up the torch which had been dangling by a lanyard from his wrists. Hastily he turned on the

gases, adjusted his valves. He swung up the igniter, flashed a spark across the torch. The flame leaped out, brilliantly orange.

Balancing himself on the swaying descending line, Bob shoved the flame through the water, pressed it against the pirate's shell. A few flakes of paint dropped off, the metal underneath glowed red, then flashed to white in a crater under the jet of oxygen. A small hole punched through the plate; rapidly Bob drew his torch downward and swept it round in a flaming circle two feet across. As he approached his starting point, the steel disk inside his cut started to bend inward as the water pressed against it; with an inch to go, the disk suddenly shot inward and a heavy stream of water poured through the hole into the ship. Bob dropped quickly several feet as he fought to keep from being swept into the ship by the rush of water; the sudden current sucked him upward. In desperation, he let go the torch, released his grip on the descending line, fell wildly away as his lifeline swung through the water under the *Lapwing* and finally brought him to with a jerk hanging up and down on the opposite side of his own ship.

On deck the battle raged. The manila bulwarks were soaked in blood; a heap of pirate dead had built them several feet higher. Blood-stained, burned with powder, worn, and wounded, the *Lapwing's* crew fought desperately to keep their enemy from sweeping over the last defences. One by one they dropped. Carroll

counted his men quickly. Only fifteen left on their feet. It was just a question of time till the wave of desperados swept over the few remaining defenders. Had it not been that the deck passages were so narrow that but few attackers at a time could press forward, nothing would have saved them from quick annihilation. Every man on the *Lapwing* had long since been pressed into the fray; below, the fires in the boilers were out while the black gang struggled side by side with the deck force to beat back the murderous attacks. Even Joe Hawkins, his bandaged leg stretched uselessly behind him, lay abaft a coil of line halfway down the passage where he had finally managed to drag himself, and coolly took pot shots with a rifle whenever a pirate's head showed above the breastworks.

An unearthly yell came from the pirate ship. Carroll, startled, took his eyes from the fight for a fraction of a second, glanced toward her.

El Fuego's stern took a sudden lurch, dropped heavily beneath the sea. The amazed combatants stopped fighting for a moment, watched petrified, while the bow of the stricken ship rose high in air, then as men poured up from below and leaped frantically into the sea, slid smoothly through the surface and disappeared stern first in a cloud of foam and steam!

With a cry of rage, a pirate hurtled over the manila bulwark, knocked the astonished captain off his feet. He struggled to rise as he felt a tangle of pounding feet scrambling over him, a body pressing him down.

Carroll looked up. A half-naked figure leaned over him, a bloody knife was poised above his heart. Carroll looked up into a swarthy face, teeth drawn back in a snarl, a light of unholy triumph gleaming in the eyes. Pedro!

The knife flashed down, Carroll's pistol barked from his hip at the same instant. The bullet struck first. Carroll saw Pedro's face spatter out, his features vanish in a welter of blood. The fighting mob above him kicked the quivering corpse into the scuppers.

Lieutenant Carroll crawled out of the wilderness of twisting feet, painfully hauled himself up on his one good arm. Three pirates who had leaped across the barrier with Pedro, lay silently behind it. His little force still held their position. The fight lulled. The panic-stricken pirates, their leaders gone, their ship sunk, retreated from the deckhouse, sought shelter on the fantail. Some thirty of them still lay there, crouching behind the bodies of their slain companions, sheltered by the capstan, by a few hawsers which they had hastily flung into a heap for protection.

Over the side, some broken hatches and bits of wreckage floated near by, supporting the few of *El Fuego's* crew who had not been sucked down with her.

Firing ceased. Lieutenant Carroll and his men hastily reloaded their smoking guns and prepared for the next rush.

It never came. Instead, one by one, the beaten pirates on the stern raised their hands high over their

heads, dropped their weapons, and surrendered. The battle was over.

Bill Clark, gory from a shot through his left leg, crawled over the heaps of dead in front of him, staggered to the fantail, and tossed their abandoned arms overboard,—knives, pistols, rifles, splashed in armfuls into the sea. From the superstructure, half a dozen rifles were trained on the bleeding pirates as Clark searched them to make sure no weapons remained.

Lines were heaved over the side, the few pirates in the water dragged aboard, and herded aft with their companions. Only thirty-one were left of *El Fuego's* crew of a hundred men!

Under the boatswain's mate's sharp directions, the surfboat trailing astern was hauled up by one of the dripping pirates; one by one they dropped into the boat until it floated, gunwale nearly awash, under the load of prisoners. Clark paid out on the painter till the boat dropped back some twenty fathoms, then made it fast. He posted two sentries with rifles to see that the men in it tried nothing desperate.

Carroll walked stiffly across the deck to the starboard side, and looked over the rail. Bob's tender clung to his lifeline, holding him at thirty feet.

The captain took the diving telephone:

"Hello, Bob!"

Below Bob turned off his air, replied:

"Hello on deck!"

"Say, Bob, did you see that ship sink?"

"Did I!" shouted Bob, "I sank her!"

Carroll's eye fell on the torch hoses. A sudden light flooded his brain. So Bob's quick wit had saved everything!

He let Bob rest a moment to catch his breath, then called him again:

"Bob, the fight's over. You were down only twenty minutes before. Mind going down again to see how things are on the bottom?"

"Surest thing you know!" answered Bob. "Lower away any time!"

Two tenders dragged Bob around the stern, dipped his lines under the painter to the surfboat, hauled him forward to the descending line. Down he went.

It seemed as if the whole sea was a mass of milky water as he descended. Fine streams of bubbles were rising everywhere from below, escaping from *El Fuego*.

An unfamiliar scene met him near the bottom. The descending line sloped down past the rounded hull of the pirate ship, which lay bottom up, the bow still a little buoyant and off the sand perhaps thirty feet. Bob slid down near her stern, saw the bronze propeller gleaming brightly out against the dull red hull, then found his descending line rubbing against the shell of the sunken ship. A few more fathoms, and he landed on the bottom. The descending line, pressed into the mud, disappeared under the capsized stern.

Slowly Bob circled the rounded stern, looking for the *Santa Cruz*. It was gone!

The hulk of *El Fuego,* hurtling downward through the sea, had landed on the poop of the treasure ship, crushed in the ancient wooden hull, and driven the wreckage into the bed of the ocean! Their treasure hunt was over!

Slowly Bob dragged his leaden feet over the ocean floor, looked his last at the grave of the *Santa Cruz.* What Drake and the *Golden Hind* had left unfinished, the silent hulk of *El Fuego* had completed. The *Santa Cruz* at last had vanished from the sight of men!

CHAPTER XXIII

HOMEWARD BOUND

FAR to the southward, the pinnacle of El Morro Island was just disappearing astern in the twilight. On the *Lapwing*, a few sailors strove to straighten up the decks and wash away the stains which splashed the whole after part of the vessel.

Lieutenant Carroll, head bandaged, arm bandaged, stiff and worn, leaned against the mast and looked forward through his missing bridge curtains down to his shattered forecastle. The helmsman, one arm in a sling, steered north towards Panama as best he could.

Bob Porter climbed the ladder to the bridge, saluted the haggard skipper.

"I think they'll all pull through, captain. Every one of 'em's conscious except poor Martin; he's got a couple of holes in him but none through the body and his head is only scratched. Fitz is working over him yet."

"How many laid up, Bob?" asked Carroll sadly.

"Well, there's only eleven of the crew that won't get out of their bunks for a while," replied Bob, "but everybody on the ship except me and my tender is shot up or stabbed somewheres. And there were five dead

under that tarpaulin on the fantail," he added mournfully.

It had been a busy afternoon. With Bob's report on the *Santa Cruz*, Lieutenant Carroll felt it useless to continue diving; indeed, except Bob, there wasn't a diver left anyway. With his decimated crew, he had not bothered to unmoor or to pick up his now useless mooring anchors. They had cut loose the four hawsers, cast off all the mooring buoys, and let them drift away, while the mooring wires sank to the bottom; inside of thirty minutes, nothing remained on the surface of the sea to mark the spot where they had toiled for nearly three months.

Meanwhile, the boilers had been lighted off again and the *Lapwing* steamed slowly in toward El Morro Island, towing her surfboat. Close to the beach, Carroll stopped, headed off-shore. He dared not anchor, for with his smashed engine, he could not weigh the anchor once he let it go.

The surfboat was dragged up under the counter, the pirates compelled to come on board again, closely guarded by armed sentries. The pirate dead were lowered over the stern into the boat, run ashore through the surf. Four trips were required to complete the gruesome task,—at last the silent bodies were laid out stiffly on the white sand.

Six at a time, the living pirates were ferried ashore, their arms tightly lashed behind their backs to prevent any attack on the boat crew.

With the last boatload went one rifle, two knives, a breaker of water, forty rounds of cartridges, some matches and a small package of bandages and medicines.

Carroll went in on the final trip, saw the last group straggle ashore through the surf and sent a seaman over to carry ashore the matches, medicine, and cartridges and insure keeping them dry. He dropped his load far up the beach, raced back to the boat. Already the less wounded pirates were struggling to undo their bonds.

Lieutenant Carroll gazed at the long row of silent forms stretched out on the beach, looked bitterly at the vicious faces of the gory pirates standing near.

In Spanish, he delivered his parting message:

"When the *Lapwing* reaches Boston, we'll notify the Ecuadorian minister you are here. A ship will some day come to take you away. If you haven't killed each other off by then, they'll no doubt hang you all on the wharf at Guayaquil."

The coxswain started his engine, headed the boat out. A seaman flung the knives ashore, pitched the rifle after them. The fettered pirates flung themselves on the knives, struggled awkwardly to cut themselves loose.

"Adios!" shouted Carroll as the boat plunged seaward toward the *Lapwing*. A volley of curses rolled across the waves in answer.

The *Lapwing* stood off a little further for safety,

then swung over her boom and hoisted in the surfboat. Slowly the ship ran out to the eastward, keeping El Morro astern till they were a league off shore.

Carroll stopped the engine as they drifted across the spot where lay the *Santa Cruz*. The entire crew (that is those who could leave their bunks) were mustered on the fantail. There where a few brief hours before the rattle of musketry and the din of battle had echoed, the men stood silently at attention while Lieutenant Carroll read the brief service for burial at sea, and reverently, one by one, they consigned the weighted bodies of their five dead shipmates to the deep.

A moment's silence while they bowed their heads in sorrow, then the captain closed his Bible, straightened up.

"Boatswain's mate, pipe down!"

The little group broke up, straggled below to nurse their stiffening wounds.

The *Lapwing* turned her prow northward and as the afternoon faded into night, they watched the sharp castle rock on El Morro disappear below the horizon. Carroll, thinking of his broken divers, the cut-up remnant of his crew, his eleven badly wounded men, and the five seamen who had died on his bullet-ridden deck, watched it go without regret. Back aft he saw several sailors shaking their fists at the fatal spot as it vanished from their sight.

The radio crackled, a message went through the air.

From: Lieutenant Carroll, U.S.N.
To: Commandant Naval Station Coco Solo, Canal Zone.

S.S. *Lapwing* in action with pirate vessel off El Morro Island Stop Coming north with wounded Stop Request convoy and surgeon as soon as possible Stop Signed Carroll. MASTER.

The *Lapwing* steamed on through the night, Bob standing a watch while Carroll slept.

Day broke to find them well on their way, Peru and Ecuador far astern.

Joe Hawkins on his crutches hobbled to the forecastle, slowly managed to make his way down into the forehold, where, with Bob, Bill Clark, and Lieutenant Carroll, they surveyed the heap of golden ingots. Joe's eyes gleamed as he saw the yellow hoard for the first time; he hefted a few of the bars, feasted his eyes on the remainder.

Together they counted their treasure. Three hundred and twenty bars. Bob figured hastily on the bulkhead.

"Five million dollars!" he announced.

The little vessel moved constantly northward. A little past noon, a streak of smoke was sighted dead ahead, rapidly rose above the horizon, bore down on them. A little anxiously they watched it, till at last the quartermaster, straining his eye through his telescope, announced:

"A destroyer!"

Soon she swept up, a rainbow of spray dancing on each bow as she gracefully split the waves. A thick haze poured from her four funnels as she raced on; they cheered as she rounded astern of them and the Stars and Stripes fluttered from her gaff.

The *Lapwing* stopped, the destroyer steamed slowly up, maneuvered alongside. The two ships rolled gently to the swells, touched an instant. A surgeon leaped aboard; a case of instruments was pitched after him, deftly caught by Bill Clark. The destroyer sheered away, took station on their starboard quarter as the *Lapwing* started her engine ahead again.

In the starboard passage, Lieutenant Carroll greeted the surgeon heartily.

"Well, if it isn't Reed!" He shook his hand vigorously. "Bob, meet my old shipmate, Surgeon Reed. He's fought two submarine campaigns with me, Bob. Surgeon, this is Mr. Porter. He's the only person on the ship who isn't nearly cut to pieces!"

While they talked, they went below, and soon the surgeon was busy probing wounds, extracting bullets and shell splinters, bandaging cuts, sewing up gashes.

He paused long over Frank Martin, who was still unconscious. Carefully he felt his skull, explored the jagged cuts in his legs where the bursting shell had struck.

"A slight concussion," he said at last. "He'll come around all right."

The surgeon worked constantly until late into the night before the last wound was dressed, the last bullet extracted. The smell of iodoform permeated the ship from end to end.

"Never saw anything like this before," exclaimed Surgeon Reed, when at last he closed his instrument case. "Must have been some fight."

"It shuah wuz, doctuh," said Fitz who was carrying his antiseptics. "Why, Ah done killed ten o' dem pirates by mahself! Ah tells you, a razuh am mighty handy in dat kind ob a scrap!"

The surgeon looked at the slashes on Fitz's plastered countenance. He nodded his head, whispered to Carroll:

"Your messboy may be telling the truth at that!"

CHAPTER XXIV

THE END

TEN days later, the *Lapwing* slipped quietly through President Roads, steamed into Boston Harbor, and ran close aboard the Navy pier in South Boston. Heaving lines shot through the air, hawsers dragged after them, and soon the ship was warped alongside.

On the bridge, Bob Porter stood proudly at Lieutenant Carroll's side; bronzed and erect, a sailor himself, he looked happily out over the crowd to greet them. On the wharf, four armored trucks waited; near them a squad of motorcycle police, with machine guns mounted in side cars, stood grimly by.

Astern a whistle loudly blew four blasts. Carroll turned. Their destroyer escort was saying farewell, slipping past them on her way to the Charlestown Navy Yard.

Bob seized the *Lapwing's* whistle cord, and their deep-toned whistle roared out its thanks. Carroll waved gaily as his Navy shipmates disappeared.

Once more they turned to the dock. The gangplank was shoved out, a stream of reporters followed Major Houghton aboard. While he clambered up on the bridge and affectionately greeted his nephew and the skipper, cameras clicked, movie handles turned,

and the reporters pressed forward for an interview.

Major Houghton turned to them.

"Gentlemen, if you will wait in the wardroom below, Lieutenant Carroll will answer all your questions in a moment." The bridge cleared.

The three reunited adventurers leaned over what was left of the bridge rail, and watched the forward boom swing bar after bar of gold up on deck where Bill Clark and Joe Hawkins tallied it, then turned it over to the bank attendants who staggered over the gangplank and dropped their burdens in the armored cars.

In half an hour it was all up. The steel doors on the cars slammed to, were locked inside. A police whistle sounded, the motorcycles coughed and sputtered, then with the trucks flanked on all sides by machine guns, the procession bearing the treasure of the *Santa Cruz* moved briskly off.

For an hour, Carroll and Bob answered questions shot from all sides by the eager correspondents; finally they escaped only because their interviewers had to rush away to get their stories on the wires for the afternoon editions.

The cabin quieted down.

"So you got five millions," said the banker, breaking the silence at last. "That's fine!"

"We'd have got the rest of it if it hadn't been for those pirates and their confounded ship!" exclaimed Bob. "Why, there's at least four millions left! And

I'll bet if we go back, we can tunnel under *El Fuego* and get to the strongroom again!"

"Maybe you can if you go back," said Carroll laughingly, "but I'm through! And I'll bet you'll have to get a new set of divers too. This gang has had enough!"

"I suppose you're right," said Bob at last. "They're all bunged up. But I'd give my eye teeth to see what was in that chest. I nearly had it open when the fight started and you called me up," he added regretfully.

"Well, I'm curious too," said Carroll, "but it's going to be one of the things I'll have to pass the rest of my life without finding out. No more salvage expeditions for me!"

They discussed the division of the treasure. It was unanimously agreed to divide it into five equal parts.

For his work in fitting out the salvage expedition and supervising the diving, Lieutenant Carroll received one share,—a million dollars. For conceiving the idea and for his work on the wreck, Bob also received a full share. In consideration of his risk and the expense of financing the *Lapwing*, Major Houghton was to take a full share.

The fourth share was to be split in four equal parts, —one of which, amounting to a quarter of a million dollars, was to go to each of the four divers. The fifth and last share was to be split into thirty-five parts, with one part, about thirty thousand dollars, going to each of the twenty-five members of the crew who

survived, and two parts, or sixty thousand dollars, going to the relatives of each one of the five sailors who were killed off El Morro.

"That looks like an equitable distribution," announced the banker when it had all been written out, "but I'm afraid I can't abide by it."

Bob looked at his uncle in pained surprise, flushed violently.

"If you'd seen how those men fought the sea down there and finally fought to save the gold, you wouldn't complain!" he snapped out heatedly.

"That's exactly why I can't agree, my boy," announced Major Houghton pleasantly. "I can't take my share. I'll reimburse myself only for the hundred and fifty thousand dollars it cost to fit out. I'm going to divide the rest of it between the divers, the crew, and the Navy Relief Society to look out for the families of other sailors who have lost their lives."

Bob flushed even more deeply, apologized profusely to his uncle, while Lieutenant Carroll, seizing the banker's hand, wrung it vigorously.

"You're a man after my own heart, sir!" he exclaimed.

Carroll stepped into the passage, looked aft, shouted:

"Boatswain's mate!"

Bill Clark ran forward as fast as his wounded leg permitted, saluted his captain.

"Muster all hands!"

For the last time, the boatswain's pipe whistled through the ship. The crew tumbled up, fell in on the fantail. Major Houghton looked them over. Bandaged legs, bandaged arms, livid slashes on their faces bore witness to what they had gone through.

On his crutches, Joe Hawkins stood alongside his much-bandaged shipmate, Frank Martin, while Bill Clark leaned on the rail next to them. In the rear, the twenty-five sailors and firemen stood at attention as well as possible.

Carroll drew a yellow form from his pocket.

"Men, I'm glad to say that a cable came this morning from the American Consul in Guayaquil. He says Tom Williams left the hospital there yesterday well but weak, and is on his way north. He'll be with us again in about fifteen days."

A yell broke out, for Tom had been a favorite with all hands.

But when Carroll next read out the agreement for the distribution of the treasure, and added the bonus that each man would get from the major's share, the cheering broke all bounds. Their dreams of wealth were realized at last. The sailors suddenly broke ranks and rushed ashore to celebrate their luck.

The major's car drew up to the gangplank. He looked at it, then shook hands with Lieutenant Carroll.

"Come, Bob, we'd better go. Will you join us at dinner tonight in Brookline, lieutenant?"

Carroll shook his head.

"Tomorrow, major, I'll be glad to. Tonight I'd rather stay aboard."

They left. Soon the divers followed them ashore. Only Fitz remained on board to serve his dinner. After the meal, he too went on liberty.

Night fell, the waves lapped against the deserted ship. A few loungers, strolling down the pier, saw only a solitary officer, rambling idly beneath the moon over a silent vessel. But as Lieutenant Carroll wandered from fantail to diving station, from the "iron doctor" to the bridge, from forecastle to superstructure, he saw the silent *Lapwing* once more peopled with her crew, the divers struggling on the bottom, facing the unseen dangers of the depths; once more he felt the swift rush of the pirates down the fantail, heard the fierce cries of battle, and as he looked out upon the peaceful city and the quiet docks, he half wished himself back in the Pacific, a league off El Morro, moored once more over the *Santa Cruz*.

THE END